

**CONFRONTING THE BLACK SWAN:**  
A Case Study of Corporate Learning

By

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## ABSTRACT

### *Objectives of the Study*

The objective of this mixed methods case study is two-fold. First, it explores corporate learning using the theory of organizational knowledge creation and one US based corporation to determine the theory's relevance to American firms. Second, it seeks to understand how social practices and leadership behaviors affect employee knowledge or "true beliefs" and thus the implications to the firm's knowledge creation and ultimately, its competitive advantage. Ikujiro Nonaka's theory of organizational knowledge creation is used as the framework to examine the extent to which internal factors affect knowledge creation at the organizational and employee levels. The research addresses two questions regarding Nonaka's theory: 1) it assesses the theory in a US corporation with a relatively homogenous population to determine the validity of the theory that was developed outside the US and 2) it examines to what extent internal factors such as social practices and leadership behaviors affect the organizational knowledge creation process. In addition, consequences from events external to the firm are assessed to determine their impact on knowledge creation and corporate learning.

### *Summary*

The study used knowledge creation theory to understand how internal behaviors and external events affected corporate learning and competitive advantage. Given that knowledge is only useful in its context, the introduction described the origins of the firm and impact of the Internet. The literature review provided the historical context for organizational culture in US firms, the growth of learning organizations and it summarized organizational knowledge creation theory. Social practices and leadership behaviors were explored in relation to a variety of topics. The research used quantitative and qualitative data that included survey data and qualitative data collected from semi-structured interviews, direct observation, internal documents, and secondary sources. The variety of sources aided the attempt to identify robust answers to the broad research questions raised in the study.

### *Conclusions*

The interviews and direct observations at the firm reveal that organizational knowledge creation is not evident in this US corporation, primarily due to the narrow way in which knowledge is perceived and leadership behaviors that fail to consistently empower subordinates in the hierarchical management model. The cultural beliefs that preclude knowledge creation were also observed to thwart corporate learning. Several social practices and leadership behaviors appear to influence employee beliefs and thus corporate learning including communication transparency, decision-making and accountability, and strategic responses to external "random" events in digital communication. Shortcomings in these areas appear to have related and unintended consequences of diminished trust, lack of confidence, and risk aversion that can jeopardize the firm's competitive advantage.

### *Key Words*

Corporate learning, organizational knowledge creation, organizational development, organizational learning, knowledge management, strategic learning, social practices, leadership

## ACKNOWLEDGEMENTS

The study shall not disclose the name of the corporation researched in the case study nor will it disclose financial results, trade secrets or other proprietary information that could impede competition. The corporation is referred to generally as “The Company” and all names from research findings are masked with pseudonyms or general job titles. The intent of the research and subsequent findings is to offer insights from the viewpoint of both scholar and practitioner. I have spent twenty years in the social expression industry and now offer my master’s thesis as an academic contribution to corporate learning – specifically organizational knowledge creation research. My hope is that it also offers a practical reflection for organizations to more objectively understand how social practices, leadership behaviors, and random events can impact knowledge creation as they pursue innovation in its many forms.

In the event some readers find it unconventional for a master of science in education thesis to focus on organizational knowledge creation in a business setting I want to offer this brief explanation. As Mark Twain said, “History doesn’t repeat itself, but it rhymes.” Hoping to understand more about corporate learning and knowledge creation through a US company with a 100-year heritage has something to offer many institutions that hold the often elusive aspiration to innovate as well as those working to educate the individuals that will occupy these institutions. Fostering the conditions that enable learning and innovation is arguably the goal of most if not all organizations whether they are public, private, for-profit, non-profit, or academic in nature.

I want to thank my own learning community for their patience and encouragement with this academic work. My advisor and thesis chairperson, Dr. John Rury, who welcomed me into the field of Education irrespective of my lack of experience and offered his time, talents, and a profound answer to my initial question about how to get started by saying, “you just start.” Thanks to my thesis committee for their guidance and to my valued friends that I have made through my work with The Company. I am grateful to them for openly sharing their beliefs and experiences in the spirit of learning and continuous improvement. Finally, much love and thanks to my husband, two children and my lovely mother for their hands on support through this project and for their enthusiasm for topics that I find fascinating.



*Some people think you are strong when you hold on. Others think it is when you let go.*

- Sylvia Robinson

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## CHAPTER 1: INTRODUCTION TO THE STUDY

### 1.1 Background to the research problem

Over twenty years ago, Ikujiro Nonaka wrote “in an economy where the only certainty is uncertainty, the one sure source of lasting competitive advantage is knowledge” (1991, p. 96). While individuals develop new knowledge, organizations play a key role in how knowledge is articulated and amplified (Nonaka, 1994) and how new knowledge is created. In 1998, Larry Prusak of IBM stated:

*There is an emerging new theory of the firm, one that recognizes the growing complexity of work, products, and organizations, and concludes that the only sustainable competitive advantage comes from what you know and how fast you can put it to use. (Cohen, 1998, p. 23)*

Knowledge is the foundation of invention and innovation (Bell, 1999). Today, US business spends over \$60 billion annually to develop employees and it is argued that when managed well, corporate learning can not only reduce errors and improve productivity it can be an essential source of competitive advantage (Bersin, 2013). How is knowledge created in an organization and how does it enhance a firm’s competitive advantage? The point of this case study is to explore corporate learning and the relevance of knowledge creation theory in the US, how social practices and leadership behaviors influence employee beliefs and subsequently, the firm’s ability to innovate and expand competitive advantage.

Organizations are defined as a group of people that collectively act for a common goal (Scharmer, 2009). For business organizations, also referred to as firms, companies or corporations, the groups of people share the common goal of maximizing profits. These organizations are not static or passive entities that merely process information. They must dynamically respond to changing marketplace conditions creating information and knowledge (Nonaka, 1994) if they are to achieve their goals over time. The paradigm of the organization as a system that processes information or solves problems in a hierarchical “input-process-output” sequence (Nonaka, 1994) that Frederick Winslow Taylor helped to create a century ago is one broadly agreed to as outdated in what has been characterized as our postindustrial, knowledge or information society (Drucker 1968; Lyotard 1984; Bell 1999). Often, in addition to maximizing profits, there is an overarching reason the business exists which Nonaka &

Toyama (2005, p. 424) use the French phrase *raison d'être* that in English translates as “reason for existence.” This suggests there are subjective elements in an organization and how they define success. Consequently, there is not one right answer or success formula that can be imitated across organizations.

Organizations, like the people within them, contain subjective qualities that must be considered and are a source of differentiation. An example of differentiation across organizations are their strategies for acquiring knowledge when competition is a “war of movement” whereby success depends on anticipating market trends and the speed in meeting customer needs (Slocum, 1994). Research in corporate learning, organizational learning, and development or “strategic learning” is built upon the premise that the conversion of information into knowledge and learning can be a source for competitive advantage and a key asset to the firm (Nonaka 1994, Nonaka & Takeuchi 1995, Kuwada 1998, Thomas et al. 2001). Peter Drucker wrote that the “main producers of wealth have become information and knowledge” (p. 183, 1993) as there is increasingly less return on conventional resources such as land, labor, and capital. He acknowledged that while knowledge has power, the ways in which knowledge behaves as an economic resource are not clearly understood. At the individual and organizational level, power and those who control it affect knowledge. People often share knowledge with those they relate to most that can result in informal yet powerful sub-groups within an organization that inhibit broad knowledge sharing across groups (Makela et al 2007). Few companies in the US embody the true nature of the knowledge-creating company and have little understanding of what knowledge is and what must be done to exploit it (Nonaka 1991, 2007) despite decades of research and commercialized concepts such as “intellectual capital”, “knowledge management”, and “learning organizations.”

Knowledge and the learning context have been defined in various ways by researchers and business scholars. For this research, knowledge and the means by which it is created is defined according to the prominent work of Ikujiro Nonaka and his associates (Nonaka et al. 2000). First, knowledge is not information that comes from what can be measured; rather it is a true belief<sup>1</sup> that is justified based on an

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<sup>1</sup> Nonaka & Toyama 2005 argues knowledge is not absolute and context-free. Instead it exists with human subjectivities and the contexts that surround whom we are (values) and from where we look at it (context).

individual's experiences in the world. Information remains the same regardless of context and knowledge is only useful in its context. Knowledge is constructed based on one's reality that involves feelings and belief systems that may or may not be conscious. Second, knowledge has explicit and tacit meaning that some can be captured, formulated into sentences, or specifications and some may be very difficult to describe since it exists in habits and culture. The analogy frequently used to explain the differences between tacit and explicit knowledge is that of riding a bike. Writing a book about a bike and how to ride it is very different than the act of riding when often the rider cannot explain how he or she does it. Effective knowledge creation also depends on other factors such as the enabling context and distinct steps involved in organizational knowledge creation that connects knowledge of individuals to the broader organization. Communicating knowledge is equally as important as creating it (Nonaka & Takeuchi, 1995). These concepts are explored at length in Chapter 2.3 *Organizational Knowledge Creation Theory*.

Only a small number of large corporations live half as long as a person<sup>2</sup> (Senge, 1990), and even fewer still actually outlive one. Jim Collins in his book *Good to Great* (2001) says that the chances are fifty-fifty that employees will see their present company disappear during their working career. With these failure rates, one can appreciate how an industry has formed around Industry with a myriad of business writers and researchers claiming they have found the universal characteristics of success. Business leaders perpetually seek to understand and embody the latest methods to “transform” so they can confidently achieve and avoid the seemingly obvious mistakes of their predecessors realized in hindsight. Daniel Kahneman (2011) agrees that stories of the rise and fall of businesses are very compelling to the minds of readers for the clear cause-and-effect portrayed in their simple narratives of victory and defeat. He argues, however, that these stories ignore “the determinative power of luck and the inevitability of regression” (2011, p. 207) that induce and maintain “an illusion of understanding, imparting lessons of little enduring value to readers who are all too eager to believe them” (2011, p. 208). Linchpin social practices and the roles of luck and randomness are discussed in Chapters 2.4 *Truth, Trust, Blame, Shame, and Power* and 2.5 *Organizational Paradox, Unpredictability, and Decision-Making*.

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<sup>2</sup> 1983 Royal Dutch/Shell study found the average lifetime of the largest industrial enterprises was less than 40 years

## 1.2 Purpose and research questions

The purpose of this mixed methods case study is two-fold. First, it explores corporate learning using the theory of organizational knowledge creation and one US based corporation to determine the theory's relevance to American firms. Second, it seeks to understand how social practices and leadership behaviors affect employee knowledge or "true beliefs" and thus the implications to the firm's knowledge creation and ultimately, its competitive advantage. The research was completed at a large corporation in the United States that is referred to throughout the study as "The Company." Ikujiro Nonaka's<sup>3</sup> theory of organizational knowledge creation is used as the framework to examine to what extent internal factors such as social practices and leadership behaviors affect knowledge creation at the organizational and employee levels. Consequences from external events will also be assessed to determine their impact on social practices, leadership behaviors, and knowledge creation. Excluded from this study are formal benchmarks with other companies, trade secrets, or any proprietary business interactions with The Company's customers or business partners. This research focuses on relevant actions and events in the decade surrounding The Company's centennial anniversary to understand not only the practices and outcomes associated with organizational knowledge creation, but to investigate the roles that uncertainty and improbable events play in beliefs and decision-making.

The research addresses two voids in Nonaka's theory of organizational knowledge creation. First, it assesses the theory in a US corporation with a relatively homogenous population to determine the validity of the theory that has been developed outside the US through work with Japanese organizations and multinational corporations (MNC). Second, it examines to what extent internal factors such as social practices and leadership behaviors affect the organizational knowledge creation process; a process that connects the knowledge created by individuals to the knowledge system of the organization (Nonaka & von Krogh, 2009). In the years since the theory's introduction, academic work by Nonaka, his associates, and others have advanced this theory; however, there remains debate regarding these key concepts.

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<sup>3</sup> Nonaka first presented this theory in 1994 and refined it with his associates: Nonaka & Takeuchi 1995; Nonaka & Konno 1998; Nonaka et al. 2000; Nonaka & Toyama 2003; Nonaka & Toyama 2005

Specifically, Nonaka and von Krogh (2009) believe there are significant research opportunities in exploring the intersection between organizational knowledge creation and social practices. They raise three broad research questions that are in scope for this study.

1. *What is the relationship between organizational knowledge creation and social practices in organizations?*
2. *When and why do social practices contribute to the conservation of existing tacit knowledge and existing routine rather than organizational knowledge creation and innovation?*
3. *How can leadership motivate and enable individuals to contribute to organizational knowledge creation by transcending social practices?*  
(Nonaka & von Krogh, 2009, p. 647-648)

The authors state, and I concur, that these questions are significant ones to the theory given organizational leaders establish the social context for knowledge creation referred to in Japanese as *ba*. The word has no exact English counterpart but roughly translates to a shared “place” or “space” (Nonaka & Konno, 1998; Cohen, 1998) described in section 2.3. Leaders can impact both the diversity of individuals in their organization and how interactions occur by the organizational climate or culture they create.

The role of leadership is approached from a broad perspective. It includes how The Company’s leaders influenced employees to change social practices within the corporate culture to contribute to the organization’s knowledge creation as well as how The Company’s leadership commonly approached decision-making during the period of study. This study will also observe whether organizational knowledge creation enhances the corporation’s competitive advantage. Do knowledge creation practices enable superior innovation and/or can they promote illusions of certainty that bias views and decisions? Decision-making practices are critical components that shape the entire organization and they offer insight into the psychology of the leaders themselves, for example, the leaders’ confidence in what they believe they understand and their ability to acknowledge the extent of their ignorance and uncertainty. Daniel Kahneman argues that our human minds have a perplexing limitation: we overestimate how much we understand and underestimate how chance influences events (2011). This concept is critically important to knowledge creation and to organizations when the believed improbable events have significant consequences and occur with increasing frequency.

### **1.3 Case study overview**

This mixed methods case study utilizes the theory of organizational knowledge creation to examine how internal factors and external events affect The Company's knowledge creation during a period of concerted change or "business transformation" initiatives. Several techniques have been used to capture information about organizational and human behaviors associated with knowledge creation including analysis of employee engagement surveys, interviews, direct observation of formal group discussions, relevant internal documents and secondary data. Former ethnography research is incorporated to provide historical and cultural context of The Company. Lastly, the research includes descriptions of external events to determine if knowledge creation as described in theory existed and if so, enhanced The Company's ability to innovate and competitive advantage.

There are five chapters that comprise this study. The first introduces the research with the background to the research problem, definition of the research questions and provides an overview of the case study. The introduction to the study also provides a historical overview of the institution in the study and offers a contextual background for the new socio-technical paradigm that is disrupting their industry. The second chapter reviews the literature by describing the legacy of organizational culture in US companies, and defining the elements and iterations of learning organizations, organizational knowledge creation theory and the multitude of considerations associated with social practices and leadership. Methodology, including the data analysis, is described in chapter three followed by the presentation of results in chapter four. Chapter five concludes that study by summarizing the research, answering the research questions, and discussing implications, the study's limitations and areas for future research.

### **1.4 A traditional US corporation**

The Company that is featured in this study began in 1910 when its eighteen-year-old founder raised on an impoverished farm in Nebraska started selling products that would change the way many Americans communicated and emotionally connected with one another through much of the 20<sup>th</sup> century. The founder and his brothers grew his company with the hands-on management style of an entrepreneur



to ultimately solidify The Company's position as both the industry leader and one of the most recognized brands in the US. I argue that this seemingly incredible accomplishment is an example of what Nassim Nicholas Taleb (2010) refers to as a Black Swan<sup>4</sup>: an improbable positive or negative event that has massive consequences. There are many examples around us that qualify as such events that range from fads, epidemics, fashion, and the Internet, to the rise and fall of world leaders and sovereign states. All of these so-called Black Swans follow the same dynamics that will be discussed in Chapter 2.5 and have the following three characteristics. They exist outside the realm of the expected – they are outliers; they have an extreme impact on the world around them; and they are predictable only in retrospect as people create explanations for its occurrence only after the fact (Taleb, 2010). In the case of The Company, a poor teenage boy creating a company that birthed a new industry and changed how many Americans express their feelings to those they care most about is an improbable and impactful positive event – a Black Swan.

The founder was a gifted pioneer. At Christmas time in 1917, he and his brothers sold out of tissue paper that was used to wrap presents in the day so, as an alternative, they offered a hard-wearing French paper used for lining envelopes. The colorful wrapping paper, later to be known as giftwrap, was a success and became a permanent alternative to its wispy and plain predecessors. The founder went on to develop new retail fixtures, used artwork from acclaimed artists such as Walt Disney, Grandma Moses, and Norman Rockwell to create new products, and ventured into the new medium of his day with a television series debuting in 1951 (Raymond, 2005). Through the mass media of television, The Company was able to effectively reach audiences across all age groups and strata of American society and created one of the most recognized slogans in advertising. The brand found its way into hearts of American audiences with commercials that still give way to happy tears (Hill, 2013). The Company found that their advertising slogan also created a business commitment that constantly put pressure on The Company to be the very best. The Company's tradition of creativity, caring, and product excellence

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<sup>4</sup> The metaphorical use of a black swan refers to the fact that people in the Old World believed *all* swans to be white prior to the discovery of the first black swan in Australia. This story “illustrates a severe limitation to our learning from observations or experience and the fragility of our knowledge” (Taleb, 2010, p. xxi).

is deeply ingrained in its corporate culture. By the mid-1990s, the organizational culture was one described by employees as “polite, caring, and full of bright and creative people” (Lampe, 1996, p.3).

On the other hand, employees have described The Company as a “hierarchical bureaucracy that specializes in reinventing the wheel and hiring the kind of people that can be programmed to walk [The Company] walk”<sup>5</sup> (Lampe, 1998, p. 181). As The Company scaled its business throughout the twentieth century growing in size and revenue, so did its smaller internal divisions and subcultures as they found a home in the hierarchical structure (Lampe, 1998). “Like the overwhelming majority of corporations and similar organizations, [The Company] was firmly grounded in – and securely hobbled by – a deeply embedded belief in the elusive validity of the pyramid hierarchy model” (MacKenzie, 1996, p.164). Traditional organizations were constructed around Adam Smith’s fundamental premise first published in 1776 that the division or “specialization” of labor created a more productive cost efficient and predictable system of work where management is in control (1904). Advancing this idea was Frederick Winslow Taylor and his management theory whose objective was to improve the efficiency of labor and maximize prosperity. “Programming people to conform to established procedures remains the essence of bureaucracy even now” (Hammer and Champy, 2003, p. 16). The literature review, Chapter 2.1, discusses at length the legacy of organizational culture in US companies and the implications to work today. At The Company, employees developed with narrow skill sets and with a limited holistic understanding of how their company operated outside of what they were told by their superiors.

*The more efficient the systems, the more management could control employees, as well as production, and the more ‘predictable’ everything became. Efficiency provided a sense of security for employees, making them feel comfortable and safe. Decision-making was kept relatively private and employees could not readily see what was going on behind the scenes. Employees trusted their supervisors, and things went well as long as they did. But when reality did not match ideology, the culture experienced trouble.* (Lampe, 1998, p. 153)

By the mid and late century, an outcome of The Company’s functionally driven organization was often a culture of damaging internal competition where conflicting executive visions, defensiveness, or complacency occurred. Sub optimizing social behaviors were also prevalent. Examples include efforts to

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<sup>5</sup> Research findings from 1996 internal focus group study by Lampe.

identify blame with "who is wrong?" rather than "what is wrong?" and the hoarding of information.

"Employees believed management hid information people needed to do their jobs" (Lampe, 1998, p. 176).

At the age of 91, the beloved founder died in 1982 just as The Company was entering a new age of connecting through new mediums made possible through the internet and personal technology. He is quoted as saying, "If a man goes into business with only the idea of making money, the chances are he won't" (Raymond, 2005, p. 325). A statement that proved prophetic as The Company would later look for paths to monetize new business models in digital and social media rather than entering these emerging spaces with a spirit of experiment and innovate first, monetize second. Unfortunately, the entrepreneurial mindset that was part of The Company's roots was lost as it grew on its success formula developing a perfectionist culture where risk taking was not rewarded. According to one of The Company's subsidiaries, the culture was one that did not value people who take risks and get results, but rather valued people who drive for perfection. "People who gravitate to environments where risk is rewarded probably don't apply to a company like [The Company]." (Lampe, 1998, p. 225). Risk-taking was not celebrated or welcome in the culture. "Historically, any failures, no matter how small or insignificant, had been ignored or looked upon as something to be ashamed of – an embarrassment to the family and the company" (Lampe, 1998, p. 228).

Today, The Company faces the challenge of maintaining revenues and brand relevance in the age where many American's can still recite their renowned advertising slogan "when you care enough to send the very best" but when they connect with others, they increasingly do so through digital mediums now capable of transmitting not just data and information, but also emotion. In 2006, The Company began an initiative to "transform" its business by enabling new thinking and technology within the organization. It looked to external inspiration, new talent, resources, and organizational restructures to turn around sagging business results. By the centennial celebration in 2010, The Company put in place a dramatically new organizational structure to support its North American business by reducing the number of senior leaders, moved from business units that create goods by product formats to platforms that make goods based on consumer needs, and began to reduce their overall workforce for the first time in their history.

The Company's leaders declared a new vision to achieve and enable long-term prosperity and identified the strategies intended to deliver sustained profitable revenue growth. The leaders commenced efforts to expand brand relevance through consumer-inspired innovation to engage more consumers more effectively by acting on shopper insights to develop compelling, differentiated products while continuing to reduce cost structures and encouraging "end-to-end" thinking to reduce organization dysfunction from decades of working in "silos"<sup>6</sup> (The Company, March 2010). Competitive advantage could no longer be sustained by relying solely on tangible assets such as The Company's established means of manufacturing or their brand. Growth had to come from new performance advantages in "intangible assets": long-term resources with no physical existence such as research and development (R&D) related activities. Examples include work dedicated to the realization of new knowledge, incorporation of new technology and enhanced organizational capabilities that enable the development of new or significantly improved products or processes that create new pathways for profitable growth.

### **1.5 The networked society**

The Information Age began at the turn of the 1970s "in what amounts to as an historical instant" (Castells, 2000, p. 33) with the revolution of information technology brought by innovations in Silicon Valley, California. These innovators were the first to decentralize corporate structure and prosper from the benefits of the networking principle. Manuel Castells (2000) contends, "that only in the 1970s did new information technologies diffuse widely, accelerating their synergistic development and converging into a new paradigm" (p. 39). Innovation was driven in three main technological fields: micro-electronics, computers, and telecommunications. For micro-electronics, the giant leap forward came with the Intel invention of the microprocessor that spawned a "revolution within the revolution" that led to the design of the Apple microcomputer. For telecommunications, the revolution was a combination of "node" technologies and transmission technologies that created new linkages followed by major

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<sup>6</sup> Silo is a commonly used term that refers to a department or division that is funded separately and acts independently often not cooperatively with the other areas within the company.

technological advances in opto-electronics and digital packet transmission that expanded the capacity of transmission lines. Collectively, these innovations made way for the Internet and the creation of the World Wide Web that likewise was facilitated by launches of browsers and communication protocols.

Each leap and bound in a specific technological field amplifies the effects of related information technologies. The convergence of all these electronic technologies in to the field of interactive communication led to the creation of the Internet, perhaps the most revolutionary technological medium of the Information Age (Castells, 2000, p. 45).

The Internet gave birth to a new industry when it was privatized in the 1990s. Castells declares that technology does not undermine society rather it represents it; technology *is* society, a new paradigm. The new socio-technical paradigm joined with a new economy that emerged during the close of the last century. This new economy is “informational, global, and networked.” Long-term productivity is the basis of the national prosperity and technology is the main productivity-inducing factor. The agents of economic growth are firms and nations that behave within the rules of an economic system, “informational capitalism”, are either rewarded or penalized by the system in their pursuit of profitability for firms and in the case of nations, competitive economies.

## CHAPTER 2: LITERATURE REVIEW

The literature review is collated into five sections. The first sets the historical context for the organizational culture in traditional US companies by contrasting the forces that originally formed the cultural norms that still exist today with the contemporary forces that compel them to change. Learning, knowledge, and learning organizations comprise the second section. The third section explores the theory of organizational knowledge creation and its evolution over the course of almost twenty years of research in organizations outside the US. The fourth section sets additional foundation for the research by elaborating on the social practices relating to truth, trust, blame, shame, and power. The fifth and final section reviews the literature on the paradoxes within organizations, the decision-making practice and the role that luck and randomness play in success.

### 2.1 Legacy of organizational culture in US companies

“In a knowledge-based economy, the new coin of the realm is learning” is the quote from Robert Reich, former US secretary of labor that introduces the book *Enabling Knowledge Creation* (von Krogh et al, 2010, p.2). Patricia Cross (1981) wrote of the learning society that is growing because it must; adults must make learning a lifelong activity to live with escalating change happening globally and locally - at home and at work. Peter Senge’s (1990) breakthrough book, *The Fifth Discipline: The Art & Practice of the Learning Organization* offered a common language for workplace change and a vision for companies to become places for collective and perpetual learning. His five disciplines of personal mastery, mental models, shared vision, team learning, and system thinking along with related ideologies from other authors gave birth to a world-wide movement to create companies that can excel in the future by discovering how to tap people’s commitment and capacity to learn at all levels in the organization. Today, as the US struggles to find new sources for economic growth and global leadership, organizational capabilities for learning in ways that create knowledge and competitive advantages in the marketplace are highly valued, however, often elusive for many organizations whether they be small, local companies or

large, multinational corporations. The pressure on organizational capabilities to create knowledge will only intensify as technology continues to evolve and leap forward while education attainment in the US slows. “College completion and high school graduation rates have been sluggish and overall years of schooling have risen more slowly than in the past” (Goldin & Katz, 2008, p.325).

To understand why change is difficult and indeed necessary for large US organizations, it must be acknowledged that these traditional organizations may still be operating in ways they were originally designed. This begins with the theory of the subdivision of labor where every man does what he is most capable of doing or “does that thing which is natural to him.” This concept dates back to Plato who claimed in his Republic that the growth of society itself was due to the benefits realized through specialization (Economic Theories, 2008). Adam Smith believed that labor, all types of labor, produced value and was the source of wealth (1904). The subdivision of labor and the system of automatic exchange, which enables specialization to take place, is the true source of the rise in the wealth of nations (Economic Theories, 2008). Smith argued the increase in total production using an example from the pin industry. Through specialization and subdivision of labor, each man could make the equivalent one pound of straight pins or more per day while one man working alone could only produce from one to twenty pins a day. Smith clearly stated the reasons for such gains: learning one job well saved the time usually spent in movements across varied jobs and familiarity with a single job encouraged invention of new techniques. Specialization of labor is not without criticism for its dehumanizing effect with Smith himself acknowledging that concentration upon a few simple job functions for extended time periods might cause the workers to lose the capacity for exercising intelligent thought.

In the early 20<sup>th</sup> century, Frederick Winslow Taylor expanded upon Adam Smith’s fundamental premise that the division or specialization of labor created a more productive cost efficient and predictable work system. Taylor and his scientific management theory known as Taylor-ism brought revolutionary changes to Industry. The objective was to improve the efficiency of labor and maximize prosperity. In his book, *The Principles of Scientific Management* (1911), Taylor developed the system of precise work methods based on scientific study. He proposed a top-down organization that described how

to select and train workers for specialized tasks, how to closely supervise them, and how to divide work equally between managers in order to apply scientific management principles. Taylor's purpose was to introduce into industry particular "natural laws" which would maximize prosperity for both the employer and workers if followed. He introduced three new principles of industrial administration. First, obtain cooperation from labor and hire the best workmen at wages high enough to guarantee their loyalty to the company. Second, standardize work and reduce it to a routine to gain efficiency. Third, introduce a system of functional planning that organizes business by the engineer not the profit maker to ensure success of large ventures and efficiency in small ones (Economic Theories, 2008). Taylor believed that by managers studying work, they could find the "one best way" for the work to be completed by their workers who were incapable of broadly understanding what they were doing. Enforced standardization of methods, enforced adoption, and enforced cooperation from workers was the duty of management. Decades of organizational practice and embedded structures create a cultural legacy of social practices and leadership behaviors that include a pursuit of task excellence, internal competition for limited resources, and conflicting visions across departments. Entrenched beliefs and behaviors must be addressed if new ways of working and effective means of knowledge creation are to be widely adopted.

As referenced in *Chapter 1.1 Background to the Research Problem*, the paradigm that Frederick Taylor helped create of the organization as a system that processes information or solves problems in a hierarchical "input-process-output" sequence (Nonaka 1994) is one generally agreed to as outdated by authors characterizing what they term as our postindustrial, knowledge or information society (Drucker 1968; Lyotard 1984; Bell 1999). The standard, pyramidal organizational structure is designed for high-growth environments because it is scalable and ideal for control and planning (Hammer & Champy, 1993). When work is broken down into pieces, supervisors can ensure the accuracy and consistency of the work down the chain of command. Budgets and planning are monitored the same way, department by department, typically in departments organized by functional areas of expertise. Champy and the late Michael Hammer (1993) contend that it is time to retire the set of principles that shaped the alignment, management, and performance of US businesses more than two centuries ago and assume a new set.



“The alternative is for corporate America to close its doors and go out of business. The choice is that simple and that stark” (Hammer & Champy, 1993. p.1). These authors argue that instead of work being broken down into specialized tasks it should instead be unified into coherent business processes. This new model and set of techniques ignited a wave in the US of business process reengineering (BPR): a radical redesign of existing processes to gain significant performance improvements such as cost, quality, and service. After two decades of implementation across a variety of US corporations, there is evidence that BPR projects did improve performance in large firms as measured by labor productivity, returns on assets, and equity (Ozcelik, 2009). An important finding is that performance increases only *after* the BPR projects are finalized and is unaffected *during* execution. Equally as important is the finding that “functionally focused BPR projects on average contribute more to performance than those with a broader cross-functional scope. This may be an indication that potential failure risk of BPR projects may increase beyond a certain level of scope” (Ozcelik, 2009, p. 7). Large investments are required for BPR projects that include both physical and human capital. The hiring of new personnel and training impacted employees on new roles may increase training budgets by 30–50% (Al-Mashari & Zairi, 1999). There are non-pecuniary costs due to changes in social practices and leadership behaviors including resistance to change, communication barriers between functional areas, communication issues between BPR project teams and other employees, lack of communication between top-level managers, management’s reluctance to commit necessary resources while expecting rapid results, and failure to hold employees accountable to new work methods during implementation (Ozcelik, 2009).

Firms and their leadership are desperately searching for the new “scientific” management rules and organizational structures that so firmly guided their success as US businesses scaled throughout the 20<sup>th</sup> century. The search for answers is exemplified by repeated redefinition of strategies, changes in organizational structures, and reconfiguration of operations in response to amplified competition, accelerated product life cycles and rising complexity in their relationships with customers, suppliers, governments, and employees. Christopher Bartlett and Sumantra Ghoshal (1990) maintain that senior-level managers in top corporations are losing control of their companies. Corporate strategies have

become more sophisticated and agile, however, organizational capabilities and employee attitudes have not followed. Companies can fall into traps that are either strategic or structural in nature. The strategic trap appeals to the leaders desire for success through simplification. It proposes simple, or even simplistic, fixed solutions to complex problems and promises rewards if the company remains steadfast. As leaders realized oversimplification as a strategic trap, they recognize the need to learn how to manage complexity leading to the second trap – structural. The structural trap deludes leaders into the belief that the best response to complex strategic requirements is to create complex organizational structures or “matrixed” organizations with parallel reporting structures to build flexibility and share knowledge more freely throughout the organization. When companies fall into the structural or organizational trap they mistakenly believe that the changes to their formal structure will also change interpersonal relationships, decision-making, and employee attitudes (Bartlett & Ghoshal, 1990). While strategies and structure are elements of success, continuous learning and beneficial knowledge creation capabilities remain vital.

*Today the most successful companies are those where top executives recognize the need to manage the new environmental and competitive demands by focusing less on the quest for an ideal structure and more on developing the abilities, behavior, and performance of individual managers. (Bartlett & Ghoshal, 1990, p. 145).*

Companies face a learning dilemma: success depends on learning yet many do not know how to learn (Argyris, 1999). Learning, the definitions of knowledge, and learning organizations are concepts integral to knowledge creating and are explored in the next section that follows.

## **2.2 Learning, knowledge, and learning organizations**

US companies create visions of themselves as places for perpetual learning (Senge 1990) often describing themselves as a “learning organization”, yet truly achieving this ideal proves an arduous task. The challenges begin with how they define learning, often too narrowly, as “problem solving” where the focus is placed on expeditiously identifying and systematically correcting errors (Argyris, 1999). Problem solving skills are indeed necessary for learning in the external environment; however, members of the organization also need the abilities, behaviors, and business setting conducive to looking inward for

learning. They need to reflect on how their own behavior can be the source of problems and how they can improve themselves, as well as other things, or other people. Chris Argyris (1999) coined the terms “single-loop” and “double-loop” learning finding that highly skilled professionals are generally very good at single-loop learning – they know how to apply their intellectual discipline to effectively solve problems. Ironically, many of these accomplished professionals are not proficient at double-loop learning because they have rarely, if ever, experienced failure. As a consequence, they can lack propensity for introspection and screen out criticism frequently blaming others for failures. When these blaming behaviors occur, they can be compounded in traditional organizations still suffering from a legacy of sub optimizing social behaviors that look for “who is wrong?” rather than “what is wrong?” Sustaining momentum in a learning organization requires businesspeople to change the way they think about organizations – less like traditional managers where knowledge is managed from the top-down and more like biologists where knowledge is cultivated and further studied (Senge 1990).

There are fundamental differences between knowledge and information despite the frequent interchangeable use of the terms and mainstream epistemology theories largely in management and organization theory that likened the two until the mid-1980s (Nonaka et al, 2006). Information refers to the flow of meanings or messages that may add to, change, or restructure knowledge (Machlup 1983). Information is an essential vehicle to initiate and formalize knowledge, and can be regarded from “syntactic” or “sematic” standpoints (Nonaka, 1994). The syntactic aspect of information focuses on form, as opposed to meaning and value, which represents the sematic aspect of information most relevant to knowledge creation. Knowledge is formed by the flow of information that serves a purpose in its context and is “anchored in the beliefs and commitment of the holder” (Nonaka & Takeuchi, 1995, p. 58). The authors affirm that unlike information, knowledge is a function of “beliefs and commitment” and is about *action* and *meaning*. The question of “what is knowledge” has been debated since Ancient Greece with definitions today varying greatly between disciplines and cultures. For this research study, knowledge and the means by which it is created will be defined according to the work of Nonaka and his associates that include von Krogh and Ichijo (2010). First, knowledge is a true belief that is justified

based on an individual's experiences in the world, and is a construct based on one's reality that involves their feelings and belief systems that may or may not be conscious. Second, knowledge has explicit and tacit meaning - some can be captured, formulated into sentences, or specifications and some may be very difficult to describe. For example, transferring explicit knowledge of how parts of the human body function from a medical textbook may be transferred fairly easily to a medical student. In contrast, the tacit knowledge required for the medical student to know how to effectively diagnose and explain what is wrong to comfort a sick patient is more difficult to teach and comes through experience. Tacit knowledge can be a rich source for new insights and innovation for business. Therefore, creating the environment that breaks down knowledge barriers is a first step in creating the enabling context (von Krogh et al, 2010) described as part of the theory of organizational knowledge creation in section three.

Diverse conceptions and assumptions of what constitutes knowledge exist between Western and Eastern world cultures. The "western view" of knowledge refers to the general view within the US as well as potentially larger culturally homogenous English-speaking populations in North America and parts of Europe. The "eastern view" denotes beliefs in Japan and likely other populations in Southeast Asia (Jelavic & Ogilvie, 2010). For this discussion, the attention is on conceptions of knowledge or "definitions" in the US and Japan. The knowledge definition rooted in traditional Western philosophy believes knowledge is "unchanging and true regardless of the social circumstances" (von Krogh et al, 2000, p. 48). This translates to a "western view" in US based companies that tend to highly value explicit knowledge such as what facts are known and tangible individualistic motivational factors (Nonaka et al, 2006; Jelavic & Ogilvie, 2010). By contrast Japanese firms tend to share an "eastern view" that is more concerned with tacit knowledge such as the know-how that embodies employees' skills, hunches, and ideals that are deep-seated and hard to share (von Krogh et al, 2000; Nonaka et al, 2006; Jelavic & Ogilvie, 2010). These fundamentally different conceptions of knowledge often manifest in contrasting business practices in US and Japanese organizations. In the US, the focus on facts that translate to knowledge practices that emphasize:

*...collecting, distributing, re-using, and measuring existing codified knowledge and information. Practitioners often look to information technology to capture and distribute this explicit knowledge; firms measure success by near-term economic returns on knowledge investment. (Cohen, 1998, 23) (Cohen, 1998, p. 23).*

The term “knowledge” itself implies a *thing*; a noun that can be captured and manipulated for measurable gain. In Japan, where the knowledge creation discipline as a whole receives more attention, the use of the term “knowing” connotes *action* of the knowers, a process that is inseparable from them (Cohen, 1998).

Japanese knowledge beliefs focus on abstract workplace principles that translate to practices emphasizing:

*...developing conditions that favor the exchange of tacit knowledge between individual knowers, a social process through which new knowledge develops. Success is measured by a long-term capability to succeed through innovation. (Cohen, 1998, 23)*

The differences between West and East are real and have significant consequences in corporations that are implementing Japanese production practices such as Lean or in a global marketplace of multinational companies where knowledge creation and management practices across different cultural perspectives is becoming increasingly complex (Jelavic & Ogilvie, 2010). Cohen provides a schematic to summarize the differences between US and Japanese views and the larger contrasts between West and East<sup>7</sup> (Table 1).

**Table 1. US-Japan Contrast View of Knowledge** (Cohen, 1998, p. 24)

<b>West (US)</b>	<b>East (Japan)</b>
Focus on Explicit Knowledge	Focus on Tacit Knowledge
Re-Use	Creation
Knowledge Projects	Knowledge Cultures
Knowledge Markets	Knowledge Communities
Management and Measurement	Nurturing and Love
Near-Term Gains	Long-Term Advantage

The polar perspectives of knowledge between West and East are important basis to reflect on and understand the impact that social practices and leadership behaviors have on creating and transferring knowledge. Quite simply, actions that may not have bearing based on one definition or conception of

<sup>7</sup> Cohen’s study (1998) distinguished perceptions of knowledge in American versus Japanese firms that he later extended, with some reservations, to characterize larger contrasts between West and East (Jelavic & Ogilvie, 2010).

knowledge may have significant consequences on another. Knowledge perspectives also influence if and how “learning organizations” are created.

Learning Organizations (LO) describe business organizations that implement innovations in their work practices, incorporate market-generated information, and make organizational changes to improve application of knowledge (Crites, 2009). The LO concept often encompasses three additional organizational principles that are subsequently defined: organizational learning, organizational knowledge, and knowledge management (Easterby-Smith by Crites, 2009). First, organizational learning is the process of informing organizational practices when external market information is converted to practical, contextual knowledge (Easterby-Smith by Crites, 2009). Second, organizational knowledge is the product of the learning process and includes internal (tacit knowledge held only in minds of organizational members) and external (explicit knowledge) forms (Easterby-Smith by Crites, 2009). Lastly, knowledge management is the term that describes the control of organizational processes and structures to facilitate knowledge sharing through information systems, communication networks (Easterby-Smith by Crites, 2009) increasingly between individuals with different backgrounds (Mäkelä, Kalla & Piekkari 2007). Therefore, one could conclude that a successful LO is one that utilizes the principles of organizational learning and knowledge management while using human systems or individuals to facilitate the capture and application of new knowledge. Arguably, this is an optimistic view of how people accept new experiences and a simplistic overall view of the means for organizational renewal. It assumes a predominately Western view of knowledge and that organizations are proactive. von Krogh, Ichijo and Nonaka (2010) share a representative example of a manager speaking of a new program intended to transform his company into a learning organization:

*[Our program] is about taking the whole organization through a process of renewal from the old ways of doing things to the new. Its success lies in the ability to galvanize an entire workforce to create a new future, not just for themselves, but for the organization as a whole. It is releasing the unexplored capabilities of people to sustain major growth without added costs.*  
(Matthews, 1997, p. 130 by von Krogh et al, 2010, p. 19)

Organizational leaders that are deploying knowledge platforms, as a means for renewal, must appreciate that there are barriers for individuals to accept new knowledge – new, justified true beliefs.

A learning organization has also been described as one where its members, regardless of their status or level, work together to raise their effectiveness and achieve outcomes from a set of shared values (Wallace 2009). Shared values, or said differently low “value” diversity and high “informational” diversity, may enhance group performance (Jehn et al. 1999). Central to organization learning research and literature over the last thirty years is the theme of learning for performance improvement; that performance differences across organizations can be attributed to what has been termed as “knowledge asymmetries” (Thomas et al. 2001). For example, how these asymmetries are expressed is foundational to the resource-based view of the organization (e.g., Wernerfelt 1984, Connor and Prahalad 1996), wherein the organization’s ability to bundle critical resources in such a way that differentiates its knowledge base in particular areas (i.e., competencies) is seen as the key to sustainable competitive advantage. Likewise, creating an environment that maximizes the organization's ability to effectively learn over time defines the view that such learning organizations will realize performance advantages in competitive markets (cf. Senge 1990, McGill and Slocum 1994). Learning behaviors and processes that enable long-term adaptive expertise are referred to as “strategic learning” (Kuwada 1998). While the organizational view provides a good overview of knowledge flows, in-depth studies of what knowledge is and how it is conveyed at the individual level makes organizational knowledge more subjective (Nonaka & Peltokorpi 2006) and helps organizations become more aware of what constitutes knowledge in their context. To understand how individuals and organizations create and share knowledge, the theory of organizational knowledge creation is discussed in section three.

### **2.3 Organizational Knowledge Creation theory**

The aim of this section is to summarize the theory of organizational knowledge creation and discuss its evolution over the course of twenty years of research. When Nonaka first published (1994) a theory of organizational knowledge creation, he argued that knowledge is created through a continuous dialogue between tacit and explicit knowledge in specific patterns of interaction – patterns, which represent ways, that existing knowledge of individuals can be converted into new knowledge of others in

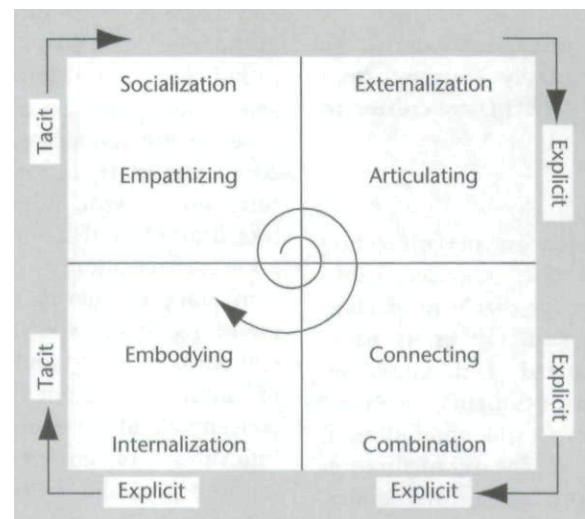
the organization. Said differently, organizational knowledge creation is the process by which the knowledge created by individuals is made available, amplified, and connected to the organization's knowledge system (Nonaka & von Krogh, 2009). Since Nonaka's first article in *Organization Science* (1994), there has been in-depth analysis and reflection that led to continued theory building and debate around the several premises such as the distinction between tacit and explicit knowledge and knowledge conversion that explains the interactions between them (Nonaka & von Krogh, 2009). The research for this case study does not concentrate on the idiosyncrasies of tacit and explicit knowledge rather focuses on the process of knowledge creation. Specifically, is new knowledge creation theory relevant in an US organization and how do social practices and leadership behaviors affect knowledge creation? To answer this question, the review of the literature summarizes Organization Knowledge Creation and the three conceptual components of the theory's model: knowledge conversion known as the SECI process, shared context for knowledge creation known as *ba*, and knowledge assets.

In 1995, Nonaka and Takeuchi used the Japanese context to formulate their famous theory and wrote *The Knowledge-Creating Company*. This collaboration originated from participation in a 1984 Harvard Business School colloquium on productivity and technology where the authors agreed that the existing theory of information processing originating from Taylor to Herbert Simon (Nonaka et al, 2006) was not adequate to explain the process of innovation: "a process to capture, create, leverage, and retain knowledge" (Scharmer, 2000, p. 24). This departure was not only from organization theory that had historically emphasized the processing of pre-given information and organizations as information processors (Nonaka et al, 2006; Nonaka 1991, 1994), but also from the "western view" of knowledge as fixed irrespective of context and fails to recognize experience and perception as described previously in section 2.2. Nonaka and Takeuchi in their book attempted to develop a universal model of how a company should be managed and presented the theory of organizational knowledge creation that has been subsequently reformulated by Nonaka and his associates. In this theory previously described in section 2.2, individuals justify the truthfulness of their observations based on their experiences in the world and personal sensibility: knowledge is a justified true belief (Nonaka and Takeuchi 1995). Fundamental to



organizational knowledge creation theory is the ability to characterize a situation and act accordingly – the use of knowledge to define a situation and subsequent actions rather than to solve predefined problems (von Krogh et al., 2000; Nonaka et al., 2006). Lastly, knowledge has explicit and tacit meaning - some can be captured with words and writing and some may be enmeshed in the senses and experiences. This definition transcends the epistemology of the West and “underscores that knowledge is never free from human values and ideas” (Nonaka et al., 2006, p. 1182). This definition of knowledge raised new questions on both the interrelationships between the explicit and tacit components and the relationships between social values, ideas and individual knowledge (Nonaka et al., 2006). Nonaka and his associates answered with what would become the second foundational element of their theory – knowledge conversion.

Knowledge conversion is how an organization creates knowledge through interactions and reciprocal relationships between explicit and tacit knowledge. Knowledge is *created* as individuals share different types and contents of knowledge as opposed to existing knowledge just being combined (Nonaka et al., 2000). Both types of knowledge expand through a process referred to as “social conversion” (Nonaka 1991, 1994; Nonaka & Takeuchi, 1995). Knowledge creation “is a journey ‘from being to becoming’” (Nonaka et al., 2000, p. 8); it is a “continuous process through which one overcomes the individual boundaries and constraints imposed by information and past learning by acquiring a new context, a new



**Figure 1. The SECI Process** (Nonaka et al, 2001, p. 498)  
Adapted from Nonaka & Takeuchi, 1995

view of the world and new knowledge” (Nonaka et al., 2006, p. 1182). Knowledge ‘expands’ in an organization through a four-stage conversion process known as SECI (Figure 1). Socialization shares tacit knowledge among individuals. Externalization articulates tacit knowledge into explicit forms of expression. Combination joins different entities of explicit knowledge followed by Internalization that

embodies explicit knowledge into tacit knowledge (Nonaka et al, 2000; Nonaka et al, 2006). Journey through the four modes of knowledge conversion forms a spiral of knowledge creation as opposed to a circle. In this spiral, knowledge is amplified creating an ever-increasing spiral as it moves up through the “ontological levels.” Knowledge created in this dynamic process can activate new spirals of knowledge creation that expand across the organization: from the individual expanding through communities that transcend departmental, divisional, and organizational boundaries. (Nonaka et al, 2000)

The Socialization-Externalization-Combination-Internalization (SECI) model of knowledge conversion is widely accepted by the knowledge management community as generally applicable across contexts and cultures; however, some scholars argue that it is not applicable to non-Japanese organizations since it was developed in a Japanese context (Glisby and Holden, 2003).

*Given its Japan-specific nature, therefore, Nonaka’s model cannot uncritically be transferred to a non-Japanese context and have the equivalent explanatory power. A more effective way of utilizing the model would be to critically compare the implicit assumptions and tacit foundation of the model with those associated with the context to which the model is attempted to be transferred to. If, however, the implicit foundation of the model is decisively different from one’s own, the applicability of the model seems theoretically questionable.*  
(Glisby and Holden, 2003, p. 35)

This point of context dependency is consistent with the definition of knowledge itself. Knowledge is context-specific, therefore, requires a shared context to be meaningful (Nonaka et al., 2000). The context for knowledge creation is *ba* (Nonaka and Konno 1998).

Nonaka & Konno (1998) introduce the concept of *ba* to answer the question of how individuals can be motivated to share and create knowledge (Cohen, 1998). “Knowledge needs a context to be created” (Nonaka et al, 2000, p. 13). *Ba* is this shared context for knowledge to be shared, created, and utilized with participants committed to *ba* through action and collaboration

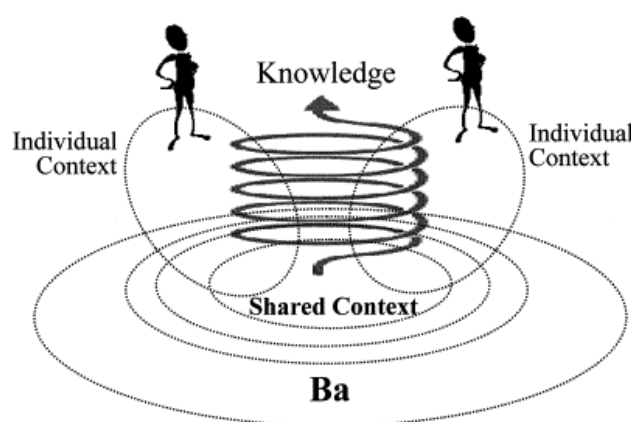
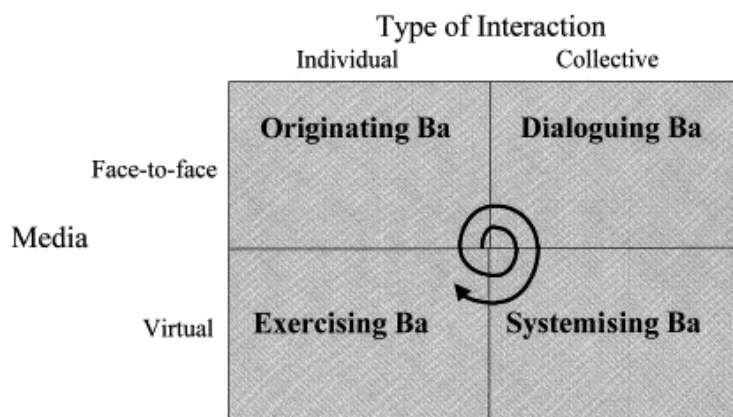


Figure 2. *Ba* as shared context in motion (Nonaka et al, 2000, p. 14)

(see Figure 2). It is as an ideal space - mental, physical or virtual - for converting tacit into explicit knowledge. The concept of *ba* has no exact English counterpart but roughly translates to a shared “place”, “field”, or “space” (Nonaka & Konno, 1998; Cohen, 1998). It is the shared space for developing relationships and whether *ba* is mental, physical, or virtual – each has knowledge embedded (Nonaka et al, 2006). Nonaka et al illustrate this concept with the following example.

*Members of a product development project share ideas and viewpoints on their product design in a ba that allows a common interpretation of the technical data, evolving rules of thumb, an emerging sense of product quality, effective communication of hunches or concerns, and so on. To participate in ba means to become engaged in knowledge creation, dialogue, adapt to and shape practices, and simultaneously transcend one's own limited perspective or boundaries.* (Nonaka et al, 2006, p. 1185)

“...like culture, *ba* is a visualization of processes occurring between individuals or groups of individuals” (Lehtonen, 2009, p. 24). *Ba* corresponds to the four stages of the SECI process that result in four types of *ba* (Figure 3). The first is originating *ba* where knowledge creation begins in the socialization phase where individuals meet in person to share emotions, experiences, and mental models. This phase is characterized by love, trust, and commitment and “a place where barriers between self and others are removed” (Cohen, 1998, p. 25). Second is dialoging *ba* (originally referred to as “interacting *ba*”) in the



**Figure 3. Four types of *ba*** (Nonaka et al, 2000, p. 16)

externalization phase that encourages individuals to dialogue with one another sharing their mental models and skills to establish mutual terms and concepts. Third is systemizing *ba* (originally referred to as “cyber *ba*”) in the combination phase where explicit new knowledge virtually joins existing information and knowledge to generate and systematize explicit knowledge through the organization. Lastly, exercising *ba* in the internalization phase motivates individuals to internalize explicit information. This is encouraged through training and repetitive teaching methods that reinforce desired new behaviors

(Nonaka et al, 1998; Nonaka et al, 2000). The natures of the various *bas* are suited for the knowledge conversion and accelerating knowledge creation (Nonaka and Konno 1998). Knowledge can be separated from *ba* and when it is “it takes the form of information that can be communicated beyond the *ba*” (Nonaka et al, 2006, p. 1185) consistent with the earlier discussion on information vs. knowledge.

Third, and final, component of the knowledge creation model is knowledge assets - foundational for effectively managing knowledge and “the outcomes of knowledge creating processes through the dialogues and practices in *ba*” (Nonaka et al, 2006, 1194). The knowledge asset concept was fused into theory for strategic purposes to give a more comprehensive and detailed investigation of the knowledge system supplementing the knowledge creation process (Nonaka et al, 2006, 2000; Nonaka & Toyama, 2005).

Knowledge assets are the inputs, outputs, and moderating factors in the process of knowledge creation and consist of four categories that also

<b>Experiential Knowledge Assets</b> Tacit knowledge shared through common experiences <ul style="list-style-type: none"> <li>• Skills and know-how of individuals</li> <li>• Care, love, trust, and security</li> <li>• Energy, passion, and tension</li> </ul>	<b>Conceptual Knowledge Assets</b> Explicit knowledge articulated through images, symbols, and language <ul style="list-style-type: none"> <li>• Product concepts</li> <li>• Design</li> <li>• Brand equity</li> </ul>
<b>Routine Knowledge Assets</b> Tacit knowledge routinised and embedded in actions and practices <ul style="list-style-type: none"> <li>• Know-how in daily operations</li> <li>• Organisational routines</li> <li>• Organisational culture</li> </ul>	<b>Systemic Knowledge Assets</b> Systemised and packaged explicit knowledge <ul style="list-style-type: none"> <li>• Documents, specifications, manuals</li> <li>• Database</li> <li>• Patents and licenses</li> </ul>

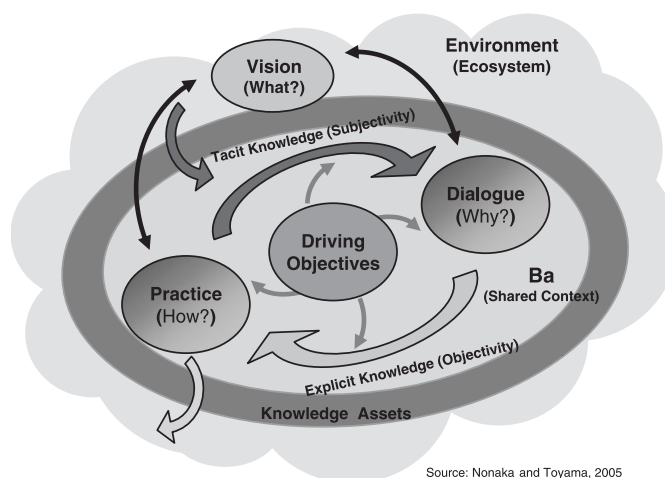
**Figure 4. Four categories of knowledge assets** (Nonaka et al, 2000, p. 20)

correspond to the SECI model (Nonaka et al, 2000). These assets are “firm-specific resources that are indispensable to create values for the firm” (Nonaka et al, 2000, p. 20). The authors acknowledge that while knowledge is thought to be one of the most vital assets for an organization to create and sustain their competitive advantage, there is not an effective means, such as a system and tools, to evaluate and manage these assets. Nonaka et al (2000) propose the categorization (see Figure 4) to appreciate how knowledge assets are “created, acquired, and exploited” (p. 21): experiential knowledge assets, conceptual knowledge assets, systemic knowledge assets and routine knowledge assets. First, the experiential knowledge assets are skills, expertise, and emotional knowledge, such as care and love, developed and amassed by individuals through their work experiences. These assets are tacit in nature, difficult to grasp, trade and evaluate. They are company specific and difficult to emulate, therefore, making them a source for sustainable competitive advantage. Second and easier to grasp are conceptual knowledge assets that

have a tangible form as language, images, and symbols. These are assets based on value they represent to customers or employees, that granted can be difficult to quantify, such as brand equity, concepts, and designs. Third, systemic knowledge assets is explicit information that is packaged and relatively easily transferred and is commonly the assets stored in knowledge management systems such as legally protected intellectual properties such as patents and licenses, product specifications, explicitly stated technologies, and documented information on customers and suppliers. The fourth and final knowledge asset is routine: embedded practices and culture within the organization that perform the day-to-day business. Patterns in thinking are established, “stories” about the organization are shared, and behaviors are reinforced over time. The four types of knowledge assets are foundation for the knowledge-creating process to occur and are dynamic with new knowledge assets forming from existing. To effectively manage and exploit the creation of knowledge, the organization must “map its stocks” of knowledge assets which requires more than cataloguing existing knowledge (Nonaka et al, 2000, p. 22).

In summary, the main goal of organizational knowledge creation theory is to recognize conditions enabling knowledge creation so that innovation and learning can improve (Nonaka 1994; Nonaka and Takeuchi 1995; von Krogh et al. 2000). Figure 6 illustrates the model of a knowledge-creating firm (Nonaka & Toyama, 2007, 2005). An

organization creates new knowledge through the synthesis of objectivity and subjectivity from existing knowledge assets in the SECI process (*Dialogues* and *Practice*) that occurs in *ba*, the enabling or shared context. *Ba* is where new knowledge once it is created becomes the source for a new spiral of knowledge creation (Nonaka et al, 2000). *Ba*



**Figure 5. The model of a knowledge-creating firm**  
(Nonaka & Toyama, 2007, p. 376)

does not apply necessarily to one static project or circumstance but extends across multi-layers within the organization crossing functional boundaries (Nonaka & Toyama 2005); “more than anything, it is a

network of interactions, determined by the care and trust of participants” (von Krogh et al, 2000, p.49).

The *Knowledge Vision* and *Driving Objective* give the SECI process direction and energy, and “a firm creates knowledge through interactions with the *Environment* as an ecosystem of knowledge and multi-

layered *ba*” (Nonaka & Toyama, 2007, p. 377). Further reflection and discussion on the theoretical concepts of knowledge creation are explored and contrasted with existing literature on social practices.

Nonaka and von Krogh (2009, p. 646-647) believe there is a “limited understanding about how social practices emerge from knowledge conversion...knowledge conversion may have both a knowledge and a social practice outcome.”

## **2.4 Truth, trust, blame, shame, and power**

“The organizational knowledge creation theory has not adequately accounted for the role of social practices” (Nonaka & von Krogh 2009, 644). As established by Nonaka and his associates in the previous section, knowledge is a “justified true belief” and is context-specific, thereby, requiring a shared context to be meaningful (Nonaka and Takeuchi 1995; Nonaka et al. 2000). Inherent to the definition of “truth” is the individual’s justification of their beliefs - a process embedded in a social context where past investments in learning and knowledge shape their current and future interests (Nonaka & von Krogh 2009). “‘Truth’ becomes a truth through social interactions, instead of existing somewhere to be discovered” (Nonaka & Toyama, 2005, p. 422). Research has located knowledge in two places and has adopted different approaches accordingly, depending if knowledge is believed to be in the mind of the individual or in the social interaction (Lehtonen, 2009, p. 22-23). While knowledge may be located in two places, it should not be perceived as separate. Lehtonen explains using a social and technical knowledge example. Social knowledge evolves from social participation located in the social interaction. Conversely technical knowledge, such as knowing how to build a bike, is controlled and evolved by the individual, therefore, resides in the mind. The knowledge to build a bike is acquired from reading how to do it or it is passed down through a social interaction. Therefore, the nature of knowledge defines its location and should be understood as complimentary, not separate.

*Tacit knowledge and explicit knowledge are not totally separate but are mutually complementary entities. Without experience, we cannot truly understand. But unless we try to convert tacit knowledge to explicit knowledge, we cannot reflect upon and share it....*  
(Interview with Ikujiro Nonaka in February 1996 by C. Otto Scharmer, 2000, p. 25)

Knowledge creation originates at a subjective level, the individual, and is made objective, explicit, through social interaction (Nonaka & Toyama, 2005). Understanding the social practices within an organization that foster or create barriers for knowledge creation is essential to improving innovation and continuous learning to capitalize on external forces - changing market conditions. Knowledge creation theory focuses on organizational creativity, change, and innovation complementing both the knowledge-based view of the firm and the dynamic capabilities theory that focuses importance on dynamic processes that form competitive advantages when assets are coordinated and combined to shape the organization's knowledge asset (Teece et al. 1997). Social practices reflect the collective beliefs of those within the organization, what knowledge the organization values and how skillfully it is applied.

Collective beliefs are illustrated in an example from the automobile industry and the application of Toyota's Production System (TPS). "TPS has long been hailed as the source of Toyota's outstanding performance as a manufacturer", however, "what's curious is that few manufacturers have managed to imitate Toyota successfully even though the company has been extraordinarily open about its practices (Spear & Bowen, 1999, p. 97). Manufacturers that include Chrysler, General Motors, Ford, and others extending across diverse fields from aerospace to consumer products are not able to easily "see" the information and knowledge that makes the difference and underlies the system's success.

*Hundreds of thousands of executives from thousands of businesses have toured Toyota's plants in Japan and the United States. Frustrated by their inability to replicate Toyota's performance, many visitors assume that the secret of Toyota's success must lie in its cultural roots. But that's just not the case. Other Japanese companies, such as Nissan and Honda, have fallen short of Toyota's standards, and Toyota has successfully introduced its production system all around the world, including in North America... (Spear & Bowen, 1999, p. 97).*

*In 1981, an engineering team from Ford Motor Company visited Toyota plants operating on the "lean" Toyota production system. Although the Ford engineers had firsthand access to the revolutionary new production system, they were unable to "see" or recognize what was in front of them and claimed that they had been taken on a staged tour; because they had seen no inventory, they assumed they had not seen a "real" plant. The reaction of the engineers reminds us how difficult it is to let go of existing ideas and beliefs (Scharmer, 2008, p. 56-59).*

Spear & Bowen (1999) believe that the answer regarding why TPS is so challenging to successfully implement elsewhere is that visitors confuse the practices and tools they observe with the system itself; a system grounded in tacit knowledge from disciplined and universal application of the scientific method. This system grew organically out of five decades cultivating workers as a community of “scientists” each approaching their work by forming testable hypotheses and making changes through a rigorous problem-solving process that details a current state assessment and a plan for an improved future state through experimentation with proposed changes. Belief in the scientific method is so deep-seated that workers are often unable to articulate it and “explains why the high degree of specification and structure at the company does not promote the command and control environment one might expect” (Spear & Bowen, 1999, p. 98). All employees are taught the scientific method, make improvements to their own jobs with assistance from supervisors as teachers, and learn through experience “the four rules” (Figure 5) that Spear & Bowen believe is the DNA of TPS. This process is consistent for all organizational levels guaranteeing that problem solving and continuous learning take place even at the highest ranks and pursue “common goodness” to form distributed practical wisdom.

The tacit knowledge that underlies the Toyota Production System can be captured in four basic rules. These rules guide the design, operation, and improvement of every activity, connection, and pathway for every product and service. The rules are as follows:

**Rule 1:** All work shall be highly specified as to content, sequence, timing, and outcome.

**Rule 2:** Every customer-supplier connection must be direct, and there must be an unambiguous yes-or-no way to send requests and receive responses.

**Rule 3:** The pathway for every product and service must be simple and direct.

**Rule 4:** Any improvement must be made in accordance with the scientific method, under the guidance of a teacher, at the lowest possible level in the organization.

All the rules require that activities, connections, and flow paths have built-in tests to signal problems automatically. It is the continual response to problems that makes this seemingly rigid system so flexible and adaptable to changing circumstances.

**Figure 6. The Four Rules** (Spear & Bowen, 1999, p. 98)

Nonaka & Toyama (2007) refer to distributed, practical wisdom as “phronesis” originally from Aristotle roughly meaning “practical wisdom”, “prudence” and “practical rationality.” The authors demonstrate this behavior using company examples one of which also includes Toyota and the tension between cost and quality. This conflict is a common one in most companies that is typically solved by



either lowering quality or increasing price to levels that customers still find acceptable. At Toyota, employees took an alternative approach.

*...instead of accepting the constraints as given and simply seeking an optimum solution under those conditions, they began by questioning the constraining conditions. They questioned what they needed to be done right now to achieve their ideal level of quality and cost, and then synthesized the knowledge of all frontline workers through kaizen activities to make operational improvements. In the end, Toyota created new knowledge in the form of a unique manufacturing system that overcame the paradox and enabled them to achieve both lower costs and higher quality (Monden, 1998). (Nonaka & Toyama, 2007, p. 387).*

Toyota's problem-solving method includes asking the question "why?" five times; with each ask the answer becomes more focused. Through "a kinetic chain of minor premises and conclusions based on specific contexts" (p. 387) the group collectively applies vertical and horizontal reasoning to overcome instead of accept initial constraints to optimize production under a new set of circumstances. This practical wisdom to determine the best action given the circumstances and pursue it to serve the common good is *phronesis*; an intellectual virtue (Nonaka & Toyama, 2007). To do this requires superior tactical knowledge acquired from practical experience and flexible, distributed leadership where the context, not an elite job title, determines the leader. "As actions originate from particular situations, *phronesis* is the ability to synthesize a general, universal knowledge with the particular knowledge of a concrete situation" (Nonaka & Toyama, 2007, p. 379). This concept synthesizes the scientific theory of "knowing why" with the practical skills of "knowing how" to the goals that are to be realized, "knowing what." *Phronesis* can be more than a possession of one individual (Halverson, 2004) manifesting in leadership behaviors that use contextual knowledge gained through experience synthesized with general knowledge to make decisions, solve problems, and set new goals. Nonaka and Takeuchi (2011) also describe practical wisdom as "experiential knowledge that enables people to make ethically sound judgments" (p. 60). *Phronetic* leadership requires social capital – the talent that fosters sharing, connections, and engagement among members of *ba* where care, love, and trust are cultivated (von Krogh et al, 2000). Social capital enables a *ba* to form motivating individuals to "transcend the self" and is also necessary to link *ba* in multiple layers (Nonaka & Toyama, 2007).

“If you think about it, your trust in some ways compensates for the knowledge you lack” (von Krogh et al, 2000, p.49). Decades of research has emphasized the critical role trust plays in organizations at the micro and macro levels ranging from employee satisfaction, teamwork and collaboration, effort and performance, leadership effectiveness, strategic alliances, mergers and acquisitions, and more (Fulmer & Gelfand, 2012). However, trust as a critical concept in the fields of epistemology and knowledge management has not received the prominent attention it warrants, especially in Western cultures (Lehtonen, 2009). As section 2.2 and 2.3 describe, there are cultural distinctions between US and Japanese views of knowledge that influence their social practices and how “knowledge” as they define it is created. Specifically, there is remarkable difference in the value placed on love and trust. For Japanese organizations according to Nonaka’s theory, love, trust, and commitment initiates the knowledge creation process when individuals meet in person to share emotions and experiences: originating *ba* where barriers between self and others are removed. “...Originating *ba* diverges from the Western tendency to understand the world through distinctions and dichotomies. In its emphasis on emotion and even spiritual qualities, it runs counter to the more ‘objective’ and external Western style of business discourse” (Cohen, 1998, p. 25). The Western philosophy view of knowledge “fails to address the relative, dynamic, and human dimensions of knowledge” (Von Krogh et al, 2000, p. 48). The differences between Western and Eastern conceptions of knowledge and human existences at large can be observed in the contrasting philosophies of Descartes and Nishida. Ikujiro Nonaka makes this point.

*To the Western-Cartesian, “I think, therefore, I am,” Nishida counters, “I love, therefore, I am.” Descartes conceives of the individual as outside the environment, an observer standing apart from and evaluating his surroundings. Nishida views the individual as inside the environment, an inseparable part of it. (Cohen, 1998, p. 24)*

Research findings from von Krogh on high-care and low-care situations support Nonaka’s conclusions that emotional attachment and trust contributes to knowledge creation (von Krogh, 1998; Cohen, 1998). Individuals in high-care groups were found to impart knowledge, openly exchanging with others in a manner von Krogh describes as “indwelling” – looking *with* others at their tasks instead of *at* others (Cohen, 1998, p.26). Georg von Krogh (1998) defines “care” as accessibility, attentive inquiry,

propensity to help, lenience to accept error, and reciprocity. Instances where these qualities are lacking characterize low-care situations with individuals in the group seizing the knowledge they need, hoarding what they have, and otherwise exerting a “maximum grip” on knowledge to exchange it only when the benefits outweigh the risks. In profit-driven organizations, trust can have instrumental value rather than value alone (Lehtonen, 2009). In other words, trust alone does not exceed expectations, but outstanding performance is achieved when a high level of trust is present and people are able to depend on one another.

*Relationships between colleagues in a firm that are based on norms of trust and cooperation for mutual advantage can improve knowledge sharing and the development of both individual tacit knowledge and valuable firm-specific routines* (Chisholm & Nielson, 2009, p. 11)

Nurturing trust, care, love, and commitment among organizational members forms the foundation of knowledge creation (Nonaka et al, 2000). The process begins in an organization when the self-organizing team triggers the forming of mutual trust by sharing experiences and continuous, increasingly creative dialogue that enables implicit perspectives to be conceptualized among team members once information is redundant (Nonaka, 1994). Redundancy, discussed in the next section of this chapter, has a negative connotation of unnecessary duplication to Western managers; however, the concept is central to Japanese firms because of its ability to establish “common cognitive ground” (Nonaka & Takeuchi, 1995, p.14).

Trust can be taken for granted or not widely valued until it is noticeably absent. “People more often than not notice mistrust than trust...individuals cannot always tell how other people express trust. Thus, it was more common to describe what trust is not” (Lehtonen, 2009, p. 68). If an organization wants to achieve optimum levels of knowledge creation, group members must learn to identify and remove obstacles to knowledge conversion such as lack of resources, time to engage in the knowledge creation, and lack of mutual trust (Nonaka and von Krogh, 2009, p. 646-647). Mistrust can occur when team members create false projections of their teammate’s behavior; consequently, managers need to be aware of trust and how misunderstandings can negatively impact it (Lehtonen, 2009). Trust is a component of care, empathy, to achieve common ground between individuals (von Krogh, 1998) – a

connection. Mistrust occurs when individuals perceive acts as unconstructive or minimizing rather than enhancing personal relationships. An example of an unconstructive, sub optimizing social behavior mentioned in the introduction is blame to identify "who is wrong?" rather than "what is wrong?" Blame can lead to feelings of shame that hurt and disengage individuals leaving them defensive and reluctant to transcend themselves to make authentic connections with others.

*Here's the best way to think about the relationship between shame and blame: If blame is driving, shame is riding shotgun. In organizations, schools, and families, blaming and finger-pointing are often symptoms of shame. Shame researchers June Tangney and Ronda Dearing explain that in shame-bound relationships, people 'measure carefully, weigh, and assign blame.' They write, 'In the face of any negative outcome, large or small, someone or something must be found responsible (and held accountable). There's no notion of 'water under the bridge'. They go on to say, 'After all, if someone must be to blame and it's not me, it must be you! From blame comes shame. And then hurt, denial, anger and retaliation.'*

*Blame is simply the discharging of pain and discomfort. We blame when we're uncomfortable and experience pain – when we're vulnerable, angry, hurt, in shame, grieving. There's nothing productive about blame, and it often involves shaming someone or just being mean.*  
(Brown, 2012, p. 195)

Brené Brown (2012) argues that if blame is a cultural pattern in any organization, then shame needs to be addressed rather than used as a “cover-up” that intentionally, or unintentionally, keeps members quiet. “When the culture of an organization mandates that it is more important to protect the reputation of a system and those in power than it is to protect the basic human dignity of individuals or communities, you can be certain that shame is systemic, money drives ethics, and accountability is dead” (Brown, p. 196). Shame can be used to change behavior at least in the short term. Shame can create swift behavior change that can be excruciatingly hurtful and has the potential to scar the person being shamed and the one doing the shaming (Brown, 2007). Shame breeds fear, destroying the tolerance for individuals to be vulnerable. People need to be vulnerable in order to trust and need to feel trust to be vulnerable. Brown’s research describes trust as “a slow-building, layered process that happens over time” (Brown, 2012, p. 47). In her book *The Gifts of Imperfection* (2010), she provides a definition of love developed from her research.

*We cultivate love when we allow our most vulnerable and powerful selves to be deeply seen and known, and when we honor the spiritual connection that grows from that offering with trust, respect, kindness, and affection.*

*Love is not something we give or get; it is something that we nurture and grow, a connection that can only be cultivated between two people when it exists within each one of them – we can only love others as much as we love ourselves.*

*Shame, blame, disrespect, betrayal, and the withholding of affection damage the roots from which love grows. Love can only survive these injuries if they are acknowledged, healed, and rare.*  
(Brown, 2012, p. 105-106)

Brown's conclusions echo those of von Krogh's high-care situations (1998) and Nonaka and associates' concept of originating *ba* (Nonaka & Konno, 1998; Nonaka et al, 2000, 2001, 2006) by acknowledging that empathy is a valued asset and love is a connection to be cultivated fulfilling the primal human need for belonging.

Empathy is required for self-transcendence and is essential to sharing individual tacit knowledge. "Tacit knowledge can only be shared if the self is freed to become a larger self that includes the tacit knowledge of the other. For example, the larger self means that we empathize with our colleagues and customers, rather than sympathizing with them" (Nonaka & Konno, 1998, p. 42). Socialization creates empathy between individuals and initiates the knowledge creation process through shared experiences. Examples include apprenticeships, informal meetings, conversations over drinks and meals, and other joint activities that occur inside or outside organizational boundaries. As individuals engage in high-quality physical experiences, their tacit knowledge accrues to become a motivating influence for transcending individual boundaries to share tacit knowledge and generating high-quality knowledge (Nonaka et al, 2001). As individuals trust, they allow themselves to be vulnerable and authentic dialogue is possible. "The research has made this clear: vulnerability is at the heart of the feedback process. This is true whether we give, receive, or solicit feedback" (Brown, 2012, p. 201). Social practices in the US can display the contrary as characterized by the well-known saying, "it's just business." When the phrase is used, it is generally a rationalization by the offender to inflict harm on others for their individual gain as opposed to acting for the common good. Nonaka recognizes the individualistic nature in the US and unlike the previous example, sees advantages to it as expressed in his 1996 interview with Otto Scharmer.

*I have to admit that socialization is difficult to achieve in the US because of its individualism and incentive systems. The Japanese incentive system is more team-oriented, and, in principle, we*

*don't lay off people. Consequently, it is relatively easy to share experiences at Japanese companies. I admit there are infrastructural differences, but nonetheless, socialization is possible in the US. With socialization, American teams are stronger than Japanese ones, because Americans are strong individuals. Strong individuals and a strong team are complementary. Japanese teams may not necessarily be so. To institutionalize team-oriented spirit, however, US organizations may need strong corporate cultures...." (Scharmer, 2000, p. 28)*

Strength in individuals, teams and corporate cultures begs the question of power – how is power created, how is it lost and what are the implications to learning and knowledge creation.

"If you want to be liked by everyone, don't do anything", Jeffrey Pfeffer commented during a lecture at Stanford University School of Business (2012). Likeability is overrated and power is an intrinsic part of leadership. Pfeffer (2010) writes that although nice people are perceived as warm, they can also be perceived as weak or even less intelligent. He argues that while its desirable to be both loved and feared, if you have to choose one – choose fear if you want power. Pfeffer describes three major obstacles that exist on the path to power. First, is the belief that the world is a fair and just place where everyone gets what s/he deserves. The negative effect of this belief is that it hinders one's ability to learn from all people and situations especially from those they do not agree with, like or even respect. Instead of learning in these instances, people instead choose to disengage believing that those they do not like will fail in the end and get what they deserve. The belief in a "just-world" also anesthetizes individuals to the need to build a power base. The second obstacle on the path to power is to avoid the leadership literature that focuses on success stories and often dismisses discussions of the power plays. Pfeffer believes the leadership literature, that is often written by business leaders themselves, prescribes how it wishes the powerful behaved - truthful, self-effacing, modest, trustworthy, and so on. The third obstacle to overcome is you. Do not be overly concerned with your self-image or experiencing setbacks. Using Toyota again as an example, there are no guarantees that the systems that enabled success will be sustained over time as exemplified by the quality problems Toyota has experienced the last few years. "In any organization, there will be internal and external factors that threaten to weaken the foundation, be they opportunities for growth, temptations to skimp on training or pressures to lower costs" (Cole, 2011, 34-35). Powerful leaders need to be attentive to maintaining the desired practices and values within their

organizations as they learn to adapt to predictable and unpredictable challenges that inevitably emerge. Leaders must direct learning in new, strategic areas because failures can come from focusing on what is known rather than focusing on what is not. The Black Swan, an improbable event that causes massive consequences, comes from misunderstanding the likelihood of surprises “because we take what we know a little too seriously” (Taleb, 2010, p. 2).

The final section of the literature review explores how leadership behaviors influence corporate cultures, and how internal environments and external events influence leadership and decision-making.

## **2.5 Organizational paradox, decision-making, and randomness**

These are times of intense change - a tipping point where old paradigms are shifting: a “crisis” where old social structures, ways of thinking and institutionalizing fail to be effective (Scharmer, 2009). Peter Senge talks about three distinct positions that can be heard in the debate on the crisis: *retro movement activists* that want to return to the order of the past; *defenders* of the status quo who just want to muddle through; and *advocates* of individual and transformational change who look for ways to break patterns of the past to experience a future of the highest possibilities (Scharmer, 2009). Leaders search for new approaches to develop heightened abilities for their organizations so they can recognize new situations and adapt quickly to dynamic environments. Research demonstrates that how top managers interpret and categorize their accumulated information and knowledge has a systematic linkage with differential organizational performance (Thomas et al., 1993). The ability to interpret events as they occur, acquire new knowledge, and disseminate improved expertise across multiple levels of an organization to fuel future performance is extremely valuable (Thomas et al. 2001). “The importance of knowledge for gaining competitive advantage is widely accepted” (Osterloh & Frey, 2000, p. 538). The inherent challenge with top down leadership is the boundaries it creates. The less people know about one another, the more difficult it is to establish and augment trust (Lehtonen, 2009).

Western and Japanese firms are profoundly different in how they create knowledge through their organizational forms (Hedlund & Nonaka, 1993). As discussed in section 2.1, US firms are traditionally

organized by the pyramidal structure designed for high-growth environments because it is scalable and ideal for control and planning (Hammer & Champy, 1993). However, “at worst, the hierarchy may be fatal for knowledge creation” (Nonaka et al, 2006, p. 1189). Hedlund and Nonaka (1993) argue the negative implications of the hierarchical organizational structure on knowledge creation and the firm’s ability to innovate.

*Concerning implications for the management of knowledge, we want to suggest that the difficulties of the large Western firms to create novelty have to do with overemphasizing the instrumental, articulating, exploiting nature of the corporation. The firm loses much of its potential for knowledge creation through the elaboration of complex managerial hierarchies and technical formalism with attendant systems, standardization and, ultimately, loss of overriding purpose. Hedlund (1986, 1991) has suggested heterarchy as a fundamental organizing principle for strategies of creation and experimentation, whereas hierarchy fits the demands of strategies of exploitation (p. 139).*

Osterloh and Frey (2000) find that sharing tacit knowledge across organizational boundaries is exceptionally problematic due to the hierarchies themselves, individual and group interests, and inadequate incentives. “Intrinsic motivation is crucial when tacit knowledge in and between teams must be transferred” (Osterloh & Frey, 2000, p. 538). Extrinsically motivated employees are indirectly satisfied through monetary compensation that is commonly tied to the measurable goals of the firm. Intrinsic motivation comes from work that provides direct and immediate need satisfaction; work is self-sustaining because it is valued for its own sake and can be strongly tied to a firm’s strategic goals and shared purposes (Osterloh & Frey, 2000). There are advantages and disadvantages to both types of motivation.

Daniel Pink (2009) in his best-selling book *Drive* highlights research from Edward Deci that found extrinsic monetary rewards, “carrots and stick”, focus interest and enhance performance in the short-term but over time fail to be effective and can reduce long-term motivation. He argues that research points to three factors for better performance and personal satisfaction: autonomy, mastery, and purpose. He defines autonomy as the ability to be self-directed and a critical component for engagement. Mastery is the innate human urge to improve and make a contribution that closely ties to purpose. Intrinsic



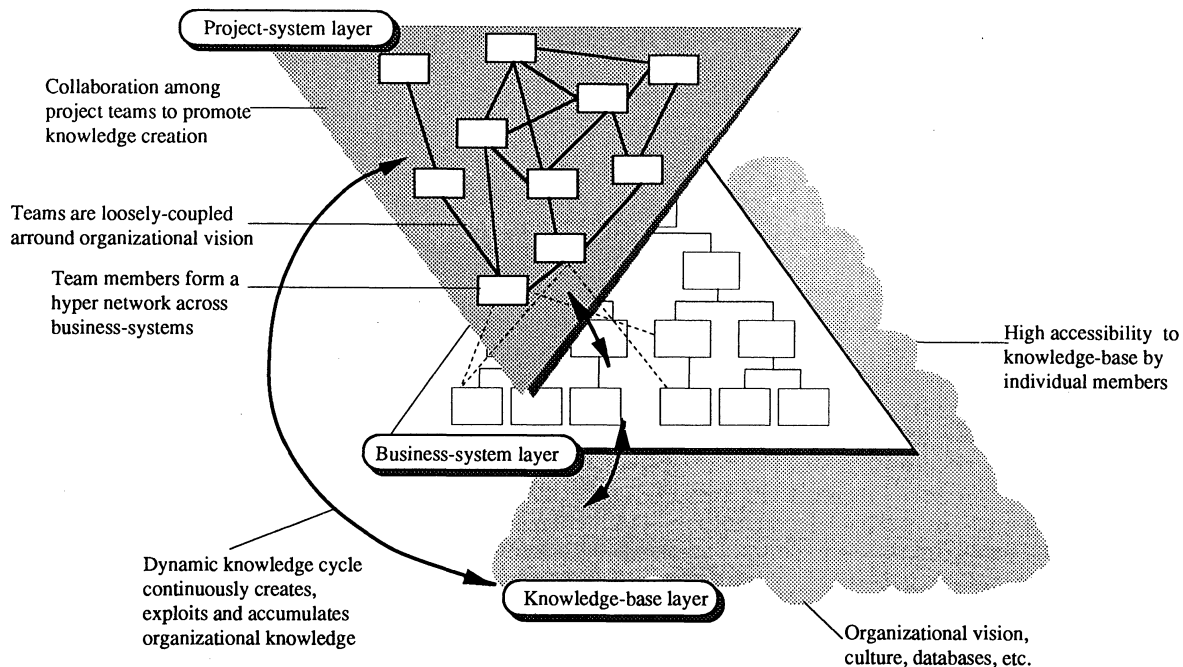
rewards do, however, have potential disadvantages in that they are more difficult to change, have uncertain outcomes, and may have undesirable content as provided by Osterloh and Frey in this example.

*Envy, vengeance, and the desire to dominate are not less intrinsically motivated than altruism, conscientiousness, and love. All of these motives contribute to immediate satisfaction rather than to achieving externally set goals” (Osterloh & Frey, 2000, p. 540).*

Managers must compare the benefits and costs of each types of motivation plus the blend of reward and command required based on the specific conditions they want to create. For example, intrinsic motivation is needed for activities that require creativity and is more beneficial for job functions with multiple tasks (Osterloh & Frey, 2000). In sharp contrast, research finds that employees who are extrinsically motivated tend to repeat what has already been successful (Amabile 1996, 1998; Schwartz, 1990 by Osterloh & Frey, 2000), and are pressured to achieve the rewards that lead to superficial performance and reduced levels of learning.

Japanese firms in general seem more flexible and dynamic than those in the West because they create both tacit and explicit knowledge in formal (project) or informal groups embracing *bas* that may span across multiple organizational units (Nonaka et al, 2006). When these groups necessitate a new division of labor and specialization, reorganization is not constrained by group members’ inability to express knowledge, requirements related to information processing or decision-making. Reorganization happens when new knowledge creation demands for specialization and coordination are discovered. This is possible due to their heterarchy structure that Nonaka and Takeuchi (1995) describe as the "hypertext organization” (Figure 7) where like an actual hypertext document, the organization has interconnected layers or different contexts that are available: the project team, the business system, and the knowledge-base layers. The top “project team” layer is where multiple project teams engage in knowledge-creating work such as new-product development. The "business-system" is the central layer where normal, routine operations are completed. The bottom layer is the "knowledge-base" that is embedded in the corporate vision, organizational culture and/or technology. This is where organizational knowledge generated in the above two layers is recategorized and recontextualized (Nonaka & Takeuchi, 1995, p. 167). Nonaka & Toyama (2005) also describe an “ecosystem of knowledge” that requires a dynamic environment where

strategic and managerial decisions are made iteratively in response to the environment as opposed to isolated from it in a vacuum. “The ecosystem of knowledge consists of multi-layered *ba*, which exists



**Figure 7. Hypertext Organization - An Interactive Model of An Interactive Model of Hierarchy and Nonhierarchy** (Nonaka, 1994, p. 34)

across organizational boundaries and is continuously evolving” (Nonaka & Toyama, 2005, p. 430).

There are advantages and disadvantages to both organizational views in the hierarchy vs. heterarchy dichotomy between Western and Japanese firms. Hedlund (1994) proposes that heterarchy is the preferred organizational form for knowledge creation because it is network-based where communication moves horizontally instead of vertically and assets, talent and leadership are distributed. However as described by Nonaka et al (2006), Hedlund does caution that despite the virtues of the heterarchy form, it can be substandard in achieving the economic efficiency of a hierarchy.

*...less costly knowledge creation through the sheer combination of explicit knowledge, faster diffusion and infusion of dramatically new practices and perspectives through people, reorganization, spin-offs and acquisitions, and a superior ability to design and implement large-scale system changes. Finally, he argued that the hierarchy is more strategically robust due to quasi-independent organizational units that can be managed as a portfolio of businesses.* (Nonaka et al, 2006, p. 1189)

Argyris (1999) abandons the belief in the hierarchical structure of the traditional pyramidal maintaining that development and deployment of project teams in a matrix organization offers promising strategies to encourage the integrated effort and collaboration required for success. In this structure, several project teams may exist within an organization that are deployed to solve critical business problems. Project team members are given equal responsibility to solve assigned problems by sharing skills and representing the interests of their functional area such as marketing, engineering, finance and so on.

Argyris' preliminary findings across nine large organizations suggest mixed results.

*In preliminary interviews the executives reported that the matrix organization and team approach made sense, but that they found them very difficult to put into actual practice. People still seemed to polar issues, resisted exploring ideas thoroughly, mistrusted each other's behavior, focused on trying to project one's own function, overemphasized simplified critical for success (e.g. figures on sales), worked too much on day-to-day operations and short-term planning, engaged in routine decisions rather than focus more on the long-range risky decisions, and emphasized survival more than the integration of effort into a truly accepted decision.*

*Others found fault with the team approach for not providing individuals enough opportunity to get recognition in their own functional departments for their performance on the team. Still others insisted that individuals sought to be personally identified with a particular accomplishment; that is wasn't satisfying for them to know that their group (and not they) obtained the reward. Finally, some said that during their meetings the teams got bogged down in focusing on the negative, i.e., what had not been accomplished (Argyris, 1999, p. 109)*

Despite the ineffectual results, Argyris believes that the matrix organization is a fundamentally valid means to respond to increasing external complexity. The challenges stem from executive leadership styles and employee's social behavior developed in the traditional pyramidal structure. This assertion echoes Barlett and Ghoshal (1990) who argue the concerns with matrix management are not from the goal of a multidimensional organization but from the "organizational trap" that firms fall into when they focus on implementing a new structure instead of changing employees' attitudes and behaviors.

*Companies must also concern themselves with the organizational physiology – the systems and relationships that allow the lifeblood of information to flow through the organization. And they need to develop a healthy organizational psychology – the shared norms, values, and beliefs that shape the way individual managers think and act (Barlett & Ghoshal, 1990, p. 140).*

Responding successfully to the demands of a complex and competitive environment occurs from a focus on developing abilities and desired behaviors rather than on achieving the ideal structure (Barlett &

Ghoshal, 1990). “Organizations work the way human beings create them” (Scharmer, 2009, p. 54). The concept of the organization as a collection of attitudes, social behaviors, and a place to create knowledge departs from the static theories of a firm that portray companies as information-processing machines. De Geus (1997) writes the firm as a machine implies the builder bestows its identity, its actions are in fact reactions to management decisions and goals, and when the machine fails management will rebuild it. Viewing the firm as a living being means it naturally evolves having its own sense of identity capable of self-renewal and regeneration - a learning entity and community of human work rather than employees as “human resources” awaiting deployment and instruction. The firm as a living entity corresponds to Nonaka and associates that argue an organization is a dialectic being that uses the SECI process and *ba* to synthesize contradictions (Nonaka & Toyama, 2003). They believe a firm is “an organic configuration of *ba* to create knowledge” rather than an assortment of subdivided tasks that require completion (Nonaka & Toyama, 2003, p. 9). Their view of the firm is that of a “dialectical being” meaning the process of its knowledge-creating activities should be known, not just the outcomes. “In the knowledge creation process, dialectics is a method of thinking and acting. It is a way/process to approach a reality to find a truth in it” (Nonaka & Toyama, 2003, p. 9). The firm as a dialectic being synthesizes contradictions through *ba* and the SECI process to present the organization and knowledge creation itself not as static theory but as a dialectic process where competitiveness depends on internal resources and market positioning. Some would argue that success in competition also depends on luck.

In his best-selling book (2011), Daniel Kahneman describes an instance when an editor of an online magazine asked him for his “favorite equation.” In response, he offered the following two:

$$\begin{aligned} \text{success} &= \text{talent} + \text{luck} \\ \text{great success} &= \text{a little more talent} + \text{a lot of luck} \end{aligned}$$

Luck is an elusive theoretical concept that, whether admitted or not, can have a non-trivial influence on outcomes. Along with the determinant power that organizations and individuals have in creating competitive advantage, the stochastic nature of firm performance must also be acknowledged (Ma, 2002). Perplexing to the human mind is the phenomenon of regression to the mean originally discovered by Sir

Francis Galton late in the nineteenth century who aptly termed it regression towards mediocrity (Koenker, 2006). The general definition for this statistical phenomenon is that “the larger the deviation from the norm, the larger the probability of it coming from luck rather than skills (Taleb, 2005, p. 155), or said differently, “whenever the correlation between two scores is imperfect, there will be regression to the mean (Kahneman, 2011, p. 181). “All deviations do not come from this effect, but a disproportionately large proportion of them do” (Taleb, 2005, p. 156). From Kahneman’s years of research with colleague Amos Tversky, he describes that the human mind does not easily accept statistics because it evokes casual explanations when no actual cause exists for outcomes occurring by regression to the mean. The struggle with the regression concept as one example originates from two very different dimensions of the mind Kahneman (2011) metaphorically refers to as “System 1” and “System 2.” System 1 operates fast and automatically, effortlessly and unquestionably providing impressions and emotion that form the basis for beliefs and deliberate choices of System 2. System 2 is slow thinking, highly diverse operations that construct orderly thoughts that can overrule the impulses of System 1 if so exercised, engaged and not otherwise distracted. The importance of these distinctions is not to satisfy academic curiosity rather a matter of pragmatic leadership to reduce the cognitive bias inherent in the decision-making process: “we are prone to overestimate how much we understand about the world and to underestimate the role of chance in events. Overconfidence is fed by the illusory certainty of hindsight” (Kahneman, 2011, p. 14). The cognitive biases that generate overoptimism are magnified by the limits of human imagination. For example, the business scenarios developed in the planning process, while detailed, are generally inadequate because any multifaceted initiative has the potential to experience countless problems that cannot be foreseen (Lovallo & Kahneman, 2003). Consequently, scenario planning can dramatically understate the probability of failures. When the overall probability of unfavorable outcomes is underestimated, the numerous outcomes that may have only a small chance of occurring in combination actually may be much more likely to happen than the deemed “most likely” scenario.

There are many types of biases that distort reasoning to affect the decision-making process. It can be argued that organizations that learn to better understand and take steps to counteract them will

reduce negative effects and improve outcomes<sup>8</sup>. Biases originate from System 1 or “fast thinking” that constructs contextual narratives from multiple inputs such as visual cues, anxieties, associations, and memories (Kahneman,

Lovaglio, & Sibony, 2011).

For the most part, these narratives are accurate but when they are not, the exception can be a cognitive

bias that conceals alternative truths from the individual without their awareness. To avoid this, Kahneman et al.

(2011) developed twelve questions (Table 2) decision-makers should ask

themselves, and the teams

making the proposals, in

order to discover biases that

may be present and other

action steps intended to aid

the decision making process.

Because individuals cannot

recognize their own biases,

*Preliminary questions to ask yourself:*

**1. Self-Interest Biases**

- Any reason to suspect motivated errors, or errors driven by the self-interest of the recommending team?
- Review the proposal with extra care, especially for overoptimism.

**2. The Affect Heuristic**

- Has the team fallen in love with its proposal?
- Rigorously apply all the quality controls on the checklist.

**3. Groupthink**

- Were there dissenting opinions within the team? Were they explored adequately?
- Solicit dissenting views, discretely if necessary.

*Challenge questions to ask the recommenders:*

**4. Saliency Bias**

- Could the diagnosis be overly influenced by an analogy to a memorable success?
- Ask for more analogies, and rigorously analyze their similarity to the current situation.

**5. Confirmation Bias**

- Are credible alternatives included along with the recommendation?
- Request additional options.

**6. Availability Bias**

- If you had to make this decision again in a year's time, what information would you want, can you get more of it now?
- Use checklists of the data needed for each kind of decision.

**7. Anchoring Bias**

- Do you know where the numbers came from? Can there be...unsubstantiated numbers? ...extrapolation from history?...a motivation to use a certain anchor?
- Reanchor with figures generated by other models or benchmarks, and request new analysis.

**8. Halo Effect**

- Is the team assuming that a person, organization, or approach that is successful in one area will be just as successful in another?
- Eliminate false inferences, and ask the team to seek additional comparable examples.

**9. Sunk-Cost Fallacy, Endowment Effect**

- Are the recommenders overly attached to a history of past decisions?
- Consider the issue as if you were a new CEO.

*Evaluation questions to ask about the proposal:*

**10. Overconfidence, Planning Fallacy, Optimistic Biases, Competitor Neglect**

- Is the base overly optimistic?
- Have the team build a case taking an outsider view; use war games.

**11. Disaster Neglect**

- Is the worst case bad enough?
- Have the team conduct a premortem: Imagine that the worst has happened, and develop a story about the causes.

**12. Loss Aversion**

- Is the recommending team overly cautious?
- Realign incentives to share responsibility for the risk or to remove risk.

**Table 2. Decision Quality Control: A Checklist**

(adapted from Kahneman, Lovaglio & Sibony, 2011, p. 54-58).

<sup>8</sup> “The Case for Behavioral Strategy,” *McKinsey Quarterly*, March 2010: a McKinsey study of more than 1,000 major business investments that found when the effects of bias are reduced in the organizations’ decision-making processes, up to seven percentage points higher returns were achieved (Kahneman, Lovaglio, Sibony, 2011).

those practicing the quality screens such as those shown in Table 2 should be absolutely independent from the teams creating and pitching the recommendations (Kahneman et al, 2011). Understanding that individuals accept their own intuitive, “fast thinking” explains why biases are so difficult to detect in oneself and why effective self-reflection or “double-loop learning” (Argyris, 1999) can be so elusive. Hope comes from the collective and an inclusive decision-making *process* when System 2 “slow thinking” is used to recognize System 1 errors in the recommendations of others.

*...when we move from the individual to the collective, from the decision maker to the decision-making process, and from the executive to the organization. As researchers have documented in the realm of operational management, the fact that individuals are not aware of their own biases does not mean that biases can't be neutralized—or at least reduced—at the organizational level. This is true because most decisions are influenced by many people, and because decision makers can turn their ability to spot biases in others' thinking to their own advantage. We may not be able to control our own intuition, but we can apply rational thought to detect others' faulty intuition and improve their judgment (Kahneman et al, 2011, p. 52-53).*

To be successful, the organizational culture must support and reinforce the systematic use of such quality controls to avoid partial screening or selective implementation. Since the introduction of cognitive biases in the 1970s by 2002 Nobel Laureates Kahneman and Tversky, biases have been well documented and researched across a variety of disciplines from psychology and economics to medical, engineering and business. The purpose of this brief review of the literature on decision-making is not to delve into the nature and scope of cognitive biases themselves, rather it is intended to reiterate the importance of bias awareness, and the need for disciplined work methods and distributed leadership to offset judgment errors to enhance the decision-making process specifically and organizational knowledge creation in general.

Typically executives and other leaders significantly rely on the judgment of their teams when they make critical decisions (Kahneman et al, 2011). Fostering judgment, practical wisdom or as defined in the previous section, “phronesis”, is fundamental to growing organizational and individual capabilities. Nonaka & Takeuchi (2011) contend that cultivating distributed leadership is one of the greatest responsibilities of a wise leader. “Practical wisdom should never be treated as if it were the preserve of the company's chief executive or top management team. It must be distributed as much as possible through the organization, and employees at all levels can be trained in its use (Nonaka & Takeuchi, 2011,

p. 66). An example that illustrates this principle in practice and the cultural differences between Japanese and Western companies is the theory of redundancy. For many Westerners, the word redundancy has a negative connotation because it describes inadvertent, unnecessary repetition, duplication of effort or waste. This concept to the Japanese, however, is central to knowledge creation because it enables “common cognitive ground” to be established (Nonaka & Takeuchi, 1995, p.14) across the organization. In Japanese firms, redundancy is intentional and denotes the “overlapping of information about business activities, management responsibilities and the company as a whole” (Nonaka et al, 2000, p. 27). Instead of slowing down knowledge creating processes it speeds them up by facilitating the sharing of tacit knowledge and acts as a “self-control mechanism” for realizing consistent and a common direction (Nonaka et al, 2000). Individuals are able to sense what others are attempting to articulate and to transcend their functional boundaries and offer alternative perspectives to advance the common good. Middle managers in Japanese firms occupy key positions forming the nuclei of self-organizing teams.

*Middle management occupies a key position, equipped with its ability to combine (Nonaka, 1988) strategic macro (context-free) information and hands-on micro (context-specific) information. Middle management is able to most effectively eliminate the fluctuation and chaos within the organization's information creation structure by serving as the starting point for action to be taken by upper and lower levels. Middle management is also able, therefore, to serve as the agent for change in the organization's self-renewing process (Nonaka, 1988, p. 67).*

These practices are a philosophical departure from traditional Western beliefs that cautions leaders to selectively share information with employees and for information that is shared, it is done so explicitly. The paradigm of the information processing (March & Simon, 1958; Simon, 1969) disregards beliefs and “images of reality” because it separates facts from subjective values in the name of “science” (Scharmer, 2000). To continue with the middle manager example, Guth and MacMillan (1986) argue that top managers must communicate self-explanatory messages regarding the rationale and goals for various strategies in order for managers to understand and willingly implement rather than delay, sub-optimize, or “totally sabotage” these strategies. Organizations “must learn to exercise severe, intelligent selectivity in mining our data mountains, and to communicate information in ways that will inform and not bury the recipients” (Simon, 2000, p. 611). The mission statement “must become part of the mind-set of every



	Top-Down	Middle-Up-Down	Bottom-Up
Agent of Knowledge Creation	top management	self-organizing team (with middle managers as team leaders)	entrepreneurial individual (intrapreneur)
Resource Allocation	hierarchically	from diverse viewpoints	self-organizing principle
Pursued Synergy	"synergy of money"	"synergy of knowledge"	"synergy of people"
Organization	big and powerful hq. staff use manuals	team-oriented affiliated firms by intrapreneurs	small hq. self-organizing suborganizations
Management Processes	leaders as commanders emphasis on information processing chaos not allowed	leaders as catalysts create organizational knowledge create / amplify chaos / noise	leaders as sponsors create personal information chaos / noise premised
Accumulated Knowledge	explicit computerized / documented	explicit and tacit shared in diverse forms	tacit incarnated in individuals
Weakness	high dependency on top management	human exhaustion lack of overall control of the organization	time consuming difficult to coordinate individuals

**Table 3. A Comparison of Three Management Models** (Nonaka, 1994, p. 31 from Nonaka, 1988b)

member of the organization.... Only if this conception of mission and guidelines is evoked whenever the occasion for decision arises, will decisions be shaped by it" (Simon, 1993, p. 138). Agents of knowledge creation in the top-down structures common in the US are senior-level managers, typically very charismatic individuals, who give voice to the company's future (Nonaka, 1994). Table 3 recaps the comparison of the US and Japanese models, top-down and middle-up-down management respectively, in terms of who creates the knowledge, resource allocation, structural and process characteristics, how knowledge is accumulated, and limitations inherent to the design (Nonaka, 1994, p. 30-31). It also offers a view of "bottom-up" entrepreneurial organization that is discussed in Chapter Five in context with The Company featured in the case study.

In a 1996 interview, Ikujiro Nonaka was asked how was it that he arrived at the idea of knowledge creation rather than remain with the established paradigm of information processing. It was the process of innovation that led to his new insight as he describes below (Scharmer, 2000).

*The turning point in my transition from information to knowledge came when I participated with my colleagues Hirotaka Takeuchi and Kenichi Imai in a Harvard Business School colloquium on productivity and technology in March 1984. I found that the existing theory of information*

*processing was not adequate. The process of innovation is not simply information processing; it's a process to capture, create, leverage, and retain knowledge. I was beginning to theorize how an organization creates knowledge.*

*When we talked with individuals in innovative organizations, they always started with their beliefs. A belief about images of the world, which you may call a mental model, is subjective. They tried to convert this subjective belief into objective language. They also tried to justify it within their organizations and finally realize it in a concrete form. The whole process originated in their subjective beliefs...innovation comes from a subjective belief or an image of the world (Scharmer, 2000, p. 24).*

If an organization acts as an open system allowing new information to continuously enter from the marketplace, then with it comes a character of self-renewal, which itself generates fluctuations, challenges and new decision alternatives (Nonaka, 1988). “An organization placed in a context of rapid environmental changes can raise the rate at which innovations occur, if the influx of problems and solutions is activated and participants who can lead problems into solutions exist” (Nonaka, 1988, p. 62). Dorothy Leonard of Harvard Business School observed, “...innovation comes from the right combination of *cohesiveness* (shared context, ideas, and language) and *diversity*. Diversity without cohesiveness leads to disorder. Cohesiveness without diversity results in groupthink” (Cohen, 1998, p. 30). Leonard believes the right balance between cohesiveness and diversity creates “creative abrasion” where minds meet on shared ground to negotiate differences that generate new ideas in the process (Cohen, 1998). New ideas, creative activities, or even an organization’s total rejuvenation can be stimulated by a crisis.

*A company begins to decline as soon as one thinks it has become a premier company. There are two things that the top management must keep in mind in order to guarantee the continuing existence of the company. The first task of top management is to create a vision that gives meaning to the employees' jobs. The second task is to constantly convey a sense of crisis to their employees (Canon's President Kaku from Nonaka, 1988, p. 66).*

A crisis can either lead to an organization’s demise or spawn entirely new innovations such as fresh product concepts that replace existing company patterns and processes with a new order (Nonaka, 1988).

In 1998 Gordon Petrash of Dow remarked, "This is an era of experimentation. There is a lot we don't know" (Cohen, 1998, p. 23). In modern social life that is increasingly connected and global, almost everything generates from consequential jumps and shocks; however, most of our existing knowledge bases focus on the “normal” through inference methods such as the “bell-curve” that predict very little

about what will happen in the future (Taleb, 2010). In his best-selling book *The Black Swan* (2010), Nassim Nicholas Taleb describes positive or negative events that were once deemed as improbable, however, now happen with increasing frequency delivering massive consequences. Examples include fads, epidemics, fashion, the Internet, and the rise and fall of world leaders and sovereign states. All of these so-called Black Swans share three characteristics. First, they exist outside the realm of the expected – they are outliers. Second, they have an extreme impact on the world around them. And lastly, they are predictable only in retrospect as people create explanations for their occurrence only after the fact. As Taleb points out this is a problem of knowledge. A knowledge problem that organizations must learn to deal with if they are to survive. When firms focus only on what they know and what has already happened, then they are blind to the reality of events that *may* happen but did not...yet. Taleb argues there are ways to get even with the Black Swan. When errors are costly and randomness is wild then be skeptical about confirmation. Lots of data cannot provide confirmation, but a single data point can disconfirm hence the example that all swans are not white. Be very aggressive when there is a possibility to profit from exposure to positive Black Swans when downsides are small and very conservative when threatened with a negative Black Swan.

*I am very aggressive when an error in a model can benefit me, and paranoid when the error can hurt. This may not be too interesting except that it is exactly what other people do not do. In finance, for instance, people use flimsy theories to manage their risks and put wild ideas under “rational scrutiny.” (Taleb, 2010, p. 296)*

He uses a framework to describe, not formulate theory, the environments that can produce Black Swans. The world of “Extremistan” is where most of the Black Swans occur and “Mediocristan” where individual events do not have significant impact on the collective and variation is within a range. An example in Mediocristan is human weight – over eating one day cannot affect one’s yearly caloric consumption and its not likely to encounter a human that weighs several tons. In other words, scalability is limited and the bell curve can accurately represent event distribution. This is not the case in Extremistan where “inequalities are such that one single observation can disproportionately impact the aggregate, or the total” (p. 33). Taleb notes that almost all social matters are examples because they are

information not physical. Knowledge in this context grows slowly and erratically with new data where history makes jumps and events are not predictable. Mediocristan is where the tyranny of the collective, the obvious, predicted and the routinized must be endured in contrast to Extremistan where the singular unseen, unpredicted and accidental reign supreme.

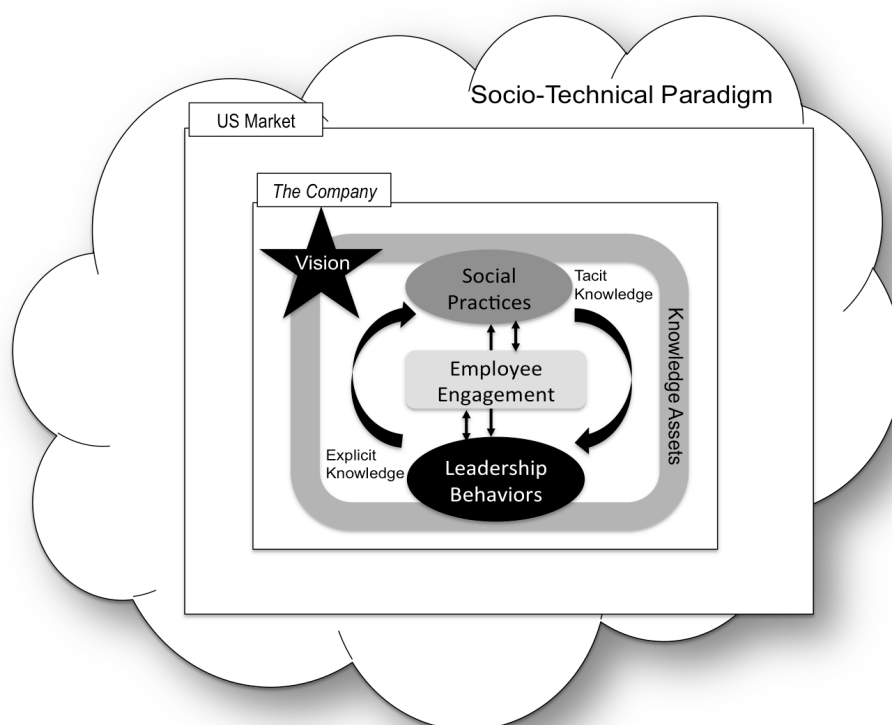
The literature review and the contextual background from The Company and the network society described in the introduction provide the theoretical foundation for the research framework proposed in chapter three.

## CHAPTER 3: METHODOLOGY

The purpose of this chapter is to explain the research methodology and justify the methods employed that are intended to yield research data from The Company to understand how social practices and leadership behaviors affect employee beliefs and thus determine the implications to the firm and knowledge creation. The chapter includes four sections. The first provides a conceptual framework to illustrate the contexts included in this study and section two details the research design. The third section details the data analysis strategies and measures and the fourth concludes with validity and reliability.

### 3.1 Conceptual Framework

This mixed methods case study uses quantitative and qualitative research methodologies to investigate events in the decade surrounding The Company's centennial anniversary, 2002 to 2013 in order to explore corporate learning and the relevance of organizational knowledge creation theory in the US, and how social practices and leadership behaviors affect employee knowledge or "true beliefs" and ultimately to the firm's competitive advantage. The conceptual framework for the research (Figure 8)



**Figure 8. Conceptual Framework for the Research**

was developed to provide a visual representation of Nonaka's theory of knowledge creation within the contextual elements of both The Company and the new socio-technical paradigm as described in chapter one's introduction. In order to fully explore corporate learning using knowledge creation theory, the study must include external influences from the US market where The Company operates and the shifting socio-technical paradigms of their US consumers. Quantitative data from employee engagement as measured by The Company in 2011 is used to investigate employees' beliefs at a point in time and determine whether significant patterns exist in the data. Qualitative data from 2011 survey comments, direct observation of information and individuals, and semi-structured interviews in 2013 are used to further understand both context and the underlying reasons for the significant patterns of employee beliefs. The ability to directly observe provides a basis for understanding shared contexts or *ba*, which is of great value when exploring social practices and leadership behaviors. This study centers on answers to "how" and "why" questions and the relevant contextual conditions where boundaries are frequently not clear between behaviors, practices and context.

### 3.2 Research design

This section describes the rationale and techniques utilized in collecting and assimilating the various sources of data.

**Data Collection.** Quantitative and qualitative data from 2011 employee engagement Pulse survey was collected from The Company that created and administered the survey questionnaire as part of the routine business practice of Public Affairs and Communication and Human Resources departments. The Pulse survey was selected as starting point for the data collection to assess *what* employee beliefs are present at The Company to further investigate *why* these beliefs are held and the implications to knowledge creation. At The Company, the Pulse surveys are routinely used to measure employee engagement and beliefs regarding various practices within the corporate culture. In addition, every couple years The Company hires a third party to administer large company-wide employee engagement

surveys that follow similar lines of questioning and methodology. Below is the explanation from The Company about the purpose and value the Pulse surveys.

*Pulse surveys are part of an ongoing program managed by public affairs and communications and human resources to measure employee engagement, progress against company culture and behavior change efforts, and communication effectiveness and preferences. Pulse surveys, which are shortened versions of a broader employee survey conducted every other year, are administered each quarter to gather an accurate "pulse" about how employees are feeling compared to previous surveys. Results of each survey are shared with senior leaders, and are used to guide areas of focus and communication for the company (The Company intranet, September, 22 2011).*

In February and October 2011, the Pulse survey was administered to all US employees in all US locations as opposed to other instances of up to 1,000 randomly selected employees who were administered in various periods across 2009 to 2012 (Appendix 1). The average Pulse survey response rate from 2009-2012 was 67%. For the two periods of study in 2011, the survey response rate was similar to the four-year average at 66% with a 72% response rate in February and 60% in October. These two periods in 2011 were selected for analysis due to the sample size (N=7630 total: N=4134 in February and N=3496 in October). Permission was granted by The Company to use and disclose questionnaire data and results from 2011 Pulse surveys for the purposes of this study (Appendix 15).

Formal semi-structured interviews were conducted in 2013 to further investigate the opinions that appear in the 2011 quantitative Pulse survey data regarding The Company's future such as its capabilities, competitive advantages, and beliefs of engagement. Interviews were conducted exclusively with middle managers from two groups; the first was men only that are currently employed by The Company and the second was open to male or female middle managers no longer employed at The Company. For the first group, candidates for the "Pulse Follow-Up" interviews were selected using a quota sampling method to achieve 10 or more interviews through an email request to fifteen male middle managers now employed by The Company for more than five years. All candidate names were listed under bcc on the email message in order maintain confidentiality of the distribution list. The email request for interview also included a copy of the questionnaire of eleven questions (Appendix 3) and the consent statement (Appendix 16) to be signed and returned. Twelve males responded and shared their beliefs regarding how

social practices and leadership behaviors affect knowledge or knowing within the company. The “Pulse Follow-Up” interviews were conducted in-person or over the phone based on what was most convenient for those interviewed with the interviews lasting on average almost 19 minutes. The twelve men interviewed were middle managers with 6 to 30 years of service at The Company in various roles within the organization. For the second group of interviews, former employees that held middle manager positions at The Company prior to ending their employment within the last 12 months were contacted and interviewed in 2013. Candidates for these interviews were selected using a quota sampling method to achieve a minimum of two “Post Employment” interviews. Females were neither excluded nor targeted from the small sampling of former employees. Six male and female middle managers that are no longer employed by The Company were emailed five questions (Appendix 4) and consent statement (Appendix 16) with a request for interview. All interview candidate names were listed under bcc on the email message in order to maintain confidentiality of the distribution list. Two former employees responded, one male and one female, and engaged in phone interviews that lasted an average of 15 minutes each.

These “Post Employment” interviews captured beliefs about The Company following a period of reflection given the individual is no longer in The Company’s day-to-day work environment. All Pulse Follow-Up and Post Employment interviews were audio recorded for transcription purposes with recordings deleted at the conclusion of the study. Specific references to either the name of The Company, employees, or product offerings were omitted from the interview transcriptions. All interviewees provided their signed consent for the interview (Appendix 16). Other qualitative data from relevant internal documents such as company news articles and training materials, and direct observation of formal group discussions was collected during the eleven-year period from 2002 to 2013 and is discussed in chapter four, *Presentation of Results*. Data collection was completed solely for the purpose of this study and is limited to the questions raised regarding organizational knowledge creation. The case study shall not disclose financial results, trade secrets or other proprietary information that could impede competition. Data collected from The Company was destroyed at the conclusion of the study.



**Instruments.** Pulse survey responses in 2011 were collected electronically using SurveyMonkey.com with an option for participants to identify themselves. For purposes of this research, all names were removed from the survey data and questions were consolidated to the 25 that were common across questionnaires and most relevant to the broad questions posed in this study (Appendix 2). Survey participants provided responses to the majority of questions using a typical five-level Likert scale of strongly disagree, disagree, neutral (neither agree or disagree), agree or strongly agree where responses were coded categorically as strongly disagree=1; disagree=2; neutral (neither agree or disagree)=3; agree=4; strongly agree=5. For questions regarding gender, job level, length of employment, and year born, responses were also collected categorically and coded as shown in Appendix 2 (questions 22-25). In addition to providing categorical responses, survey participants had the option to provide comments in open text fields on the surveys. While the questions and response options were common across survey periods, the sequence of the questions varied. Data from the survey questionnaires was downloaded from SurveyMonkey.com in separate SPSS Statistics files that were consolidated into one SPSS file for statistical analysis. A new variable of “Survey Period” was created and coded for data analysis.

The Pulse survey questionnaire designed by The Company is modeled after the questionnaire created by the third party, Kenexa an IBM Company, which is hired to measure employee engagement as mentioned previously every two to three years. Employee engagement defined by Kenexa as: “The extent to which employees are motivated to contribute to organizational success, and are willing to apply discretionary effort to accomplishing tasks important to the achievement of organizational goals” (KHPI, 2012, p. 4). Kenexa, and likewise The Company, measures overall employee engagement by creating an “Employee Engagement Index” using the following four questions (Appendix 2, questions 18-21):

- *I would gladly refer good friends or family members to this company for employment (Advocacy)*
- *I rarely think about looking for a new job with another company (Commitment)*
- *I am proud to work for “The Company” (Pride)*
- *Overall, I am extremely satisfied with this company as a place to work (Satisfaction)*

Kenexa asserts that, “attitudinal engagement is considered a state (as opposed to a trait) and is appropriately measured through questions that ask about pride, advocacy, overall satisfaction and

commitment to the organization” (2008, p.1) as shown by the questions and states in parentheses above. For each of these questions, a score is reported that corresponds to the percent of respondents that agree with the question; more specifically questions that receive a rating of “agree” or “strongly agree.” The Employee Engagement Index or EEI is calculated by *averaging* the scores from the four questions. This method of engagement calculation does *not* provide a reflection of the percent of employees who agree with *all four* questions, or in other words, the percent of employees who have pride, advocacy, overall satisfaction *and* commitment to the organization. This researcher argues a more accurate reflection of a state of “attitudinal engagement” as described by Kenexa is the percent of individuals that agree with *all* four questions. For this reason, the EEI scores will not be used in the data analysis and employee engagement is calculated as the percent of employees who “agree” or “strongly agree” with all four questions. While the four questions above measure the percent of employees who are engaged at a given point in time, other questions in the survey can influence the state of being engaged and reflect important information about employee beliefs. The point of incorporating The Company’s employee engagement data is to gain insight into a couple of things. First, what do Pulse engagement surveys reveal about employees’ true beliefs and do changes in beliefs imply learning – knowledge creation? Second, what does the way in which The Company interprets and amplifies survey insights say about leadership beliefs? Answers to these questions will help to identify answers to the broader research questions raised in the study: is the theory of knowledge creation relevant at The Company and how do social practices and leadership behaviors impact the knowledge creation process as evidenced by employee beliefs.

Questions for the formal interviews were created following the analysis of the 2011 Pulse survey data and were designed to investigate the beliefs behind the quantitative data and the limited qualitative data that was available in the comments section of the 2011 surveys. Given the relative stability of the data that is discussed in the next chapter, it is believed that the beliefs expressed in 2013 by individuals present at The Company for more than five years is relevant and indicative of employee beliefs in 2011. The semi-structured nature of the formal interviews and number of open-ended questions allowed interviewees the freedom to reflect and express their views in their own way. Clarifying questions were

asked during the Pulse Follow-Up and Post Employment interview discussions to gain clarity and fully understand the beliefs shared. For the Pulse Follow-Up interviews, a standard list of eleven questions was used for the formal interviews and included three structured, close-ended questions and eight unstructured, open-ended questions for current male middle manager employees asked to elaborate on their beliefs. The interviews began with the three close-ended questions that included face-sheet information of job level, years of service, and year born. The remaining eight open-ended questions that followed allowed interviewees to elaborate on their beliefs on the company's capabilities, resources, social practices, and leadership behaviors. Specific questions were asked about behaviors they experience that build or erode trust and whether they trust the skills and talents of senior leaders, and if/how they believed the company was building competitive advantages. The complete questionnaire is listed in Appendix 3. As mentioned under data collection, the interviews lasted on average almost 19 minutes; the shortest interview was just over eight minutes and the longest interview was almost 34 minutes.

Lastly, for the Post Employment interviews a standard list of five open-ended questions was used for the semi-structured interviews with the former middle manager employees asked to elaborate on their beliefs regarding their experience at The Company. This second group of interviews was completed following the first group of interviews to determine if there were differences in beliefs upon leaving The Company. The former employees were asked if there were factors that inhibited their performance and/or ability to learn, if they thought social practices and leadership behaviors affect knowledge within The Company, and if there were implications to building competitive advantages. These questions were similar to the first group of interviews, however, also included a new question: if they believed there is a cultural belief that job level equates to knowledge at The Company and if so, what are the implications. Appendix 4 provides the full questionnaire. The two phone interviews lasted on average 15 minutes; one interview was just over 16 minutes and the other was just over 14 minutes.

### 3.3 Data analysis strategies and measures

The dependent or outcome variable used for the analysis is “engaged employees” as defined as employees who either “agree” or “strongly agree” with the four questions noted previously (Appendix 2 questions 18-21) that reflect attitudes of advocacy, commitment, pride, and satisfaction with the organization. These variables were transformed from their original categorical ordinal variable on the five-level Likert scale to a new, single dichotomous variable that has only two levels reflecting employees who are “engaged” (“agree” or “strongly agree” with questions 18-21) or those employees who do not meet this criteria across the four questions. Appendix 5 lists other ordinal variables corresponding to eight survey questions that were transformed to dichotomous variables (1=“agree” or “strongly agree” with question or 0=“neutral”, “disagree” or “strongly disagree” with the question) to investigate patterns in the data such as factor analysis and binary logistic regression using the independent variables of gender, job status, length of employment, and age group (questions 22-25).

Gender, length of employment, age group, job status, middle managers and October survey period are used as the independent or predictor variables in the analysis. The job status variable (question 23) was transformed slightly from its original form by removing all responses of “Don’t Know”=5. A new dichotomous variable of “Middle Manager” was created from job status (1=responses of 3 indicating middle manager (grades 11-14) or 0=all other responses) so that middle managers as a group could be used as an independent in the regression analysis. Likewise, a new dichotomous variable of “Oct\_Survey” was created from the Survey Period variable (1=October 2011 survey or 0=all other surveys) so that changes from February to October 2011 could be analyzed.

The qualitative data obtained was categorized by the relevant theme or main topic to facilitate triangulation - validation of the data by cross verifying from 2011 survey comments, semi-structured interviews in 2013, direct observation and internal documentation over an eleven-year period. While the categorization process was often not mutually exclusive, such as interview responses that were relevant to multiple categories, the process did allow for consistent patterns in the data to appear.

### 3.4 Validity and reliability

Validity and reliability can be affected in case study analysis by challenges inherent with data overload such as reliance on first impressions, unique incidents, or by assuming correlation between events that are unrelated. During the design phase of this research, a variety of basic threats to reliability were addressed and include consistency in data collection by utilizing only one researcher, documentation captured over an eleven-year period to capture a holistic story, the use of quantitative survey data (Kohn, 1997), and qualitative data collected from survey comments, interviews, direct observation, internal documents and secondary data. For the interviews, a nonprobability quota sampling strategy was utilized that ensures some degree of representativeness, however, is less precise than a proportional stratified sampling. The external validity for this mixed methods case study is low as it pertains to a statistical representativeness or generalizability of findings to other organizations; however, it does attempt to generalize results to the broader theory of organizational knowledge creation. It is appropriate to summarize findings from the research methodology when analyzing beliefs and social interactions given that both are complex and pure causalities are rare.

This researcher made her best attempts to guard against bias during analysis. Attempts were made to avoid the holistic fallacy by attempting to include outliers in the data collection process while at the same time balancing any tendency to generalize from exceptional events or nonrepresentative informants that could give way to elite bias. The greatest risk of bias is the potential to "go native" and lose objectivity and distance during data analysis and presentation of results due to my familiarity with the industry. To avoid this and other biases, the primary method for validation throughout the analysis is triangulation between the various data sources. Multiple methods for collecting and analyzing data were used in order that sources converge on the facts and truth of a case. Multiple data sources and multiple respondents were part of the mixed methods research design including quantitative survey data and qualitative data from interviews, direct observation of formal group discussions, relevant internal documents, secondary data, and biographical analysis of the organization. Finally, coaching from my

chairperson who has no internal experience with The Company or with its larger industry provided objective counsel to examine this case study design, its assumptions and conclusions.

## CHAPTER 4: PRESENTATION OF RESULTS

This chapter's objective is to elucidate the findings and illuminate patterns that emerged from the quantitative survey data and qualitative data collected from survey comments, semi-structured interviews, direct observation, internal documents and secondary data sources. The results are presented in seven sections that begin with the 2011 Pulse survey findings discussed in sections one through three. The fourth section illustrates the middle manager beliefs from the men interviewed in 2013 that are summarized in the section five along with the unintended consequences and unpredicted outcomes. The sixth section describes the beliefs shared by middle managers no longer with The Company that are followed by the summary of results in the seventh and final section.

### 4.1 Engagement measure for employee beliefs

Employee engagement is a popular and perennial topic for business firms that endeavor to maximize their investment in human capital. Employee engagement as defined by The Company is attitudinal engagement or a state as opposed to trait-based and behavioral engagement. Engagement is not solely about encouraging the behaviors that maximize productivity; it is also about “creating a psychological affiliation with the organization so employees know what they do is more than ‘just a job’”. The manager's behavior plays a critical role in the process of engaging an employee. Those managers who listen to their employees' concerns and demonstrate commitment to improvement through follow-up actions are more likely to engage their workers.” (Kenexa Corporation, 2008, p. 1). Leaders at The Company philosophically agree with the need for attitudinal engagement of their employees, and consequently routinely measure and communicate employee engagement levels. Attitudinal engagement is also part of the embedded corporate culture as documented by Lampe (1998); “The nearly-a-century-old company prides itself on family values, tradition, and stability” (p. ii). “The culture of niceness and sharing and caring was created and reinforced by the founder who went to great lengths to take care of his corporate family” (p. 223).

At the end of 2011, The Company reported and reflected on the Pulse survey results that showed lower engagement in October. This article is reflective of other reporting and leadership commentary following a survey period where results are shared at a high-level, suppositions for the changes are provided and action steps for continued improvement are communicated. Shown below are two excerpts from the same intranet article on the topic:

*The survey also showed little progress — and even some significant declines, especially among middle and senior managers — in changing employee perceptions of several specific priorities identified for improving engagement and business performance. [Senior manager title] – human resources, says continued business challenges likely are the main factor in the declines.*  
(The Company intranet, December 15, 2011)

The comparison between the two largest survey periods of all employees in February and October 2011 shows that fewer people overall were in a state of being engaged (Table 4)<sup>9</sup> that is referred to throughout as “engaged employees” as defined in section 3.2 *Research Design*. In February, 58% of employees were engaged versus 55% in October. While The Company routinely focused on the change in scores between

**Engaged Employees \* Survey Period Crosstabulation**

			Survey Period		Total
			Feb 2011	Oct 2011	
Engaged Employees	Not	Count	1724	1567	3291
		% within Survey Period	41.7%	44.8%	43.1%
		% of Total	22.6%	20.5%	43.1%
	Yes	Count	2410	1929	4339
		% within Survey Period	58.3%	55.2%	56.9%
		% of Total	31.6%	25.3%	56.9%
Total		Count	4134	3496	7630
		% within Survey Period	100.0%	100.0%	100.0%
		% of Total	54.2%	45.8%	100.0%

*Yes = agree or strongly agree with all 4 engagement questions. Not = neutral, disagree, strongly disagree.*

**Table 4. Engaged Employees in 2011**

survey periods, the critical point is not the fairly small change, rather the stability over time of the two largest surveys. This stability suggests that the sentiments are truly representative of beliefs in the

<sup>9</sup> The Company measures and reports overall employee engagement using the Employee Engagement Index (EEI). This study instead uses the percent of employees who are in agreement with all four questions used to measure engagement. This varies but corresponds to the average percent across these questions or Employee Engagement Index (EEI) of 78% and 75% respectively. EEI is not used in this analysis.



workforce in 2011. What is more, this pattern of stability continues across the nine smaller Pulse surveys that occurred from 2009 to 2012 where employee engagement percentages fluctuate up or down ranging from a high of 61.8% to a low of 45.8% with a mean of 53.2%. The 95% confidence interval has a lower endpoint, 45.6% and an upper endpoint 63.8%, which means that in 95% of the cases the employee engagement outcome will be between the endpoints calculated from the mean. This implies normal fluctuation as a result of regression to the mean or in other words, random chance, as opposed to causal links that can be drawn from changes in engagement for any particular period.

Significant patterns in the survey data arise when analyzing engaged employees from the two large survey periods in 2011,  $N = 7630$ . This chapter presents results that reflect a good deal of skepticism or lack of confidence in The Company and its leadership, especially from the most experienced employees, whose knowledge and insight is arguably what the company may need most especially during a time of business transformation.

## **4.2 Beliefs that correlate**

In 2011 data results, there are several questions that indicate beliefs, shown as dichotomous variables, which significantly and positively correlate with the state of being engaged, shown as the dependent variable, engaged employees. In other words, employees who are engaged also believe that this company has an outstanding future (Bright Future, question 16); trust the leadership of the company (Trust, question 13); believes that the leadership has communicated a vision of the future that motivates them (Future Vision, question 14); is confident that this company will be able to transform its business (Transform, question 17); believes this company values their contribution (Values Contribution, question 10); believes there is open, honest two-way communication in this company (Open Comm, question 11); believes resources are focused on what matters most (Focus Matters, question 3); and feel they are part of a team (Team, question 12). The correlations with their correlation coefficients ( $r$ ) are shown in Table 5. The correlations with the strongest relationships are highlighted indicating that employees who believe this company has an outstanding future are confident it will be able to transform its business ( $r = 0.711$ );

### Correlations

		Engaged Employees	Bright Future .16	Trust .13	Future Vision .14	Transform .17	Values Contribution .10	Open Comm .11	Focus Matters .3	Team .12
Engaged Employees	Pearson	1	.462**	.456**	.441**	.446**	.429**	.376**	.360**	.374**
	Correlation									
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.000	.000
	N	7630	7630	7630	7630	7630	7630	7630	7630	7630
Bright Future .16	Pearson	.462**	1	.514**	.539**	.711**	.391**	.376**	.408**	.301**
	Correlation									
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000	.000	.000
	N	7630	7630	7630	7630	7630	7630	7630	7630	7630
Trust .13	Pearson	.456**	.514**	1	.582**	.521**	.478**	.448**	.435**	.432**
	Correlation									
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000	.000	.000
	N	7630	7630	7630	7630	7630	7630	7630	7630	7630
Future Vision .14	Pearson	.441**	.539**	.582**	1	.535**	.420**	.403**	.425**	.361**
	Correlation									
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000	.000	.000
	N	7630	7630	7630	7630	7630	7630	7630	7630	7630
Transform .17	Pearson	.446**	.711**	.521**	.535**	1	.376**	.375**	.426**	.310**
	Correlation									
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000	.000	.000
	N	7630	7630	7630	7630	7630	7630	7630	7630	7630
Values Contribution .10	Pearson	.429**	.391**	.478**	.420**	.376**	1	.429**	.361**	.497**
	Correlation									
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000	.000	.000
	N	7630	7630	7630	7630	7630	7630	7630	7630	7630
Open Comm .11	Pearson	.376**	.376**	.448**	.403**	.375**	.429**	1	.428**	.377**
	Correlation									
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000		.000	.000
	N	7630	7630	7630	7630	7630	7630	7630	7630	7630
Focus Matters .3	Pearson	.360**	.408**	.435**	.425**	.426**	.361**	.428**	1	.306**
	Correlation									
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000		.000
	N	7630	7630	7630	7630	7630	7630	7630	7630	7630
Team .12	Pearson	.374**	.301**	.432**	.361**	.310**	.497**	.377**	.306**	1
	Correlation									
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	
	N	7630	7630	7630	7630	7630	7630	7630	7630	7630

\*\* . Correlation is significant at the 0.01 level (2-tailed).

**Table 5. Beliefs that Significantly and Positively Correlate with the State of Engagement**

employees who believe the leadership has communicated a motivating vision for the future trust the company leadership ( $r = 0.582$ ) as well as believe this company has an outstanding future ( $r = 0.539$ ); employees who believe it will be able to transform its business are likely to believe leadership has communicated a motivating vision for the future ( $r = 0.535$ ); employees who trust the leadership of the company are confident this company will be able to transform its business ( $r = 0.521$ ) as well as believe this company has an outstanding future ( $r = 0.514$ ). These results are consistent with Kenexa that

generally states that confidence in the organization's future consistently and heavily contributes to engagement (Kenexa Corporation, 2008), and that more cooperative and successful work environments occur when employees trust their senior leaders (Kenexa Corporation, 2013). Leaders that are trustworthy are likely to have followers that take risks, such as sharing new ideas that can become the building blocks for innovation. Kenexa reports, "Employees who trust their senior leaders report greater innovation. They feel encouraged and supported, and are willing to try new things even though they might not succeed" (p. 2013, p. 2). Kenexa finds that the characteristics of leaders that foster trust are benevolence, competence, and integrity, "Leaders who are seen as capable, kind and honest inspire trust" (p. 2013, p. 2). Lastly, a factor analysis was performed and found that all of the Pulse survey responses utilized in this analysis loaded onto one factor, suggesting that these questions addressed slightly different dimensions of a single construct that are further described in the next section.

#### **4.3 Predicted outcomes**

Binary logistic regression framework is used to investigate the dependence structure of various outcome variables such as engaged employees and a set of six explanatory variables. In separate regressions, the engaged employees variable and the eight other variables listed in Appendix 5 are used as dependent variables, also referred to as outcome or response variables. Gender, Length of Employment, Year Born that indicates age group, Job Status, Middle Managers and October Survey period are the independent variables, also referred to as predictor or explanatory variables. Results of the regressions are detailed below, along with the interpretations of what the variations in proportion and probability models imply for The Company.

Logistic regression represents the probability of an occurrence<sup>10</sup>. For engaged employees as the dependent variable shown in Table 6, employees with beliefs defined as engaged, described in section

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<sup>10</sup> It was not observed that The Company engaged in regression analysis rather it reported the percent of employees that agreed with each question and noted differences in results between job status and the changes between periods.

3.3, are more likely to be younger females with shorter lengths of employment who do not hold middle management positions. From Table 6 shown below, the estimated model is:

$$\text{Logit (engagedemployees)} = 2.529 - 0.506(\text{gender}) - 0.183 (\text{empl length}) - 0.192(\text{year born}) + 0.74(\text{job status}) - 0.195(\text{middle manager}) - 0.163(\text{oct survey})$$

**Variables in the Equation with Engaged Employees as Dependent Variable**

	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
							Lower	Upper
Gender	-.506	.052	94.069	1	.000	.603	.544	.668
Employment Length	-.183	.024	56.046	1	.000	.833	.794	.874
Year Born	-.192	.033	34.699	1	.000	.825	.774	.880
Step 1 <sup>a</sup> Job Status	.074	.054	1.882	1	.170	1.077	.969	1.197
Middle Manager	-.195	.117	2.783	1	.095	.823	.654	1.035
Oct Survey	-.163	.051	10.246	1	.001	.849	.768	.939
Constant	2.529	.220	132.092	1	.000	12.541		

a. Variable(s) entered on step 1: Gender, Employment Length, Year Born, Job Status, Middle Manager, Oct Survey.

**Table 6. Predictive Model for Engaged Employees**

Statistically significant is gender (1=female, 2=male) with a negative parameter of B=-0.506 indicating that males are 60% (Exp (B)=0.603) as likely as females to be engaged while controlling for the other independent variables. The confidence interval for gender Exp (B) is 0.544 to 0.668 indicating that males are between 0.544 to 0.668 times as likely to be engaged as females. Likewise, employment length indicates that as experience with the company increases, the odds of being an engaged employee do not. Employees with greater tenure are 83% (B=-0.183 and Exp (B)=0.833) as likely to respond as engaged as compared to employees with shorter lengths of employment. The Year Born predictor variable echoes a similar result with greater odds for positive beliefs in younger employees. Older employees are 83% (B=-0.192, Exp (B)=0.825) as likely to be engaged as younger coworkers. Overall employee engagement beliefs are less widely held in October as compared to February 2011 as shown by B=-0.163. In fact, beliefs for all regressions worsened in October as compared to February. The relationship between employee engagement and middle managers were not significant; however, the relationship between employee engagement and job status is. As job status rises, so does the likelihood or odds of being an

engaged employee ( $B=0.074$ ,  $\text{Exp}(B)=1.077$ ) or in other words, employees with higher job status are 1.077 times as likely to share the beliefs of engagement. A meaningful exception to this probability trend will come from middle managers in the regressions that follow.

Comparable patterns exist in the logistic regression models when the eight variables listed in Appendix 5 are analyzed as dependent variables. A key difference from the previous regression for engaged employees (Table 6) is that these regressions show significance for middle managers. Tables 7-9 show significance in all independent variables indicating that buy-in and commitment to the company is problematic for older males with greater length of employment and middle manager status. This group of male, veteran employees in middle manager positions responded less favorably to questions reflecting beliefs that the company has an outstanding future (Table 7), that they trust the its leadership (Table 8), and are confident it will transform its business (Table 9). Although agreement with these beliefs rises with job status ( $B=0.206$ ), middle managers as a group do not share these beliefs with the same probability as employees who are not middle managers. In fact, when controlling for the other independent variables, middle managers are only 60% ( $\text{Exp}(B) = 0.603$ ) as likely to agree that they believe the company has an outstanding future (Table 7), only 49% as likely ( $\text{Exp}(B) = 0.488$ ) to agree that they trust the leadership of the company (Table 8), and only 60% ( $\text{Exp}(B) = 0.606$ ) as likely as other employees to agree that they are confident this company will be able to transform its business (Table 9).

**Variables in the Equation with Bright Future as Dependent Variable**

	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
							Lower	Upper
Gender	-.414	.054	59.540	1	.000	.661	.595	.734
Employment Length	-.337	.027	150.344	1	.000	.714	.676	.753
Year Born	-.117	.034	11.713	1	.001	.890	.832	.951
Step 1 <sup>a</sup> Job Status	.206	.058	12.611	1	.000	1.228	1.097	1.376
Middle Manager	-.506	.124	16.561	1	.000	.603	.472	.769
Oct Survey	-.334	.053	40.386	1	.000	.716	.646	.794
Constant	3.102	.239	168.515	1	.000	22.237		

a. Variable(s) entered on step 1: Gender, Employment Length, Year Born, Job Status, Middle Manager, Oct Survey.

**Table 7. Predictive Model for employees who believe the company has an outstanding future**

**Variables in the Equation with Trust as Dependent Variable**

	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
							Lower	Upper
Gender	-.409	.056	53.028	1	.000	.664	.595	.742
Employment Length	-.262	.028	86.092	1	.000	.770	.728	.813
Year Born	-.111	.036	9.671	1	.002	.895	.835	.960
Step 1 <sup>a</sup> Job Status	.646	.077	69.861	1	.000	1.909	1.640	2.221
Middle Manager	-.717	.163	19.452	1	.000	.488	.355	.671
Oct Survey	-.236	.055	18.416	1	.000	.790	.709	.880
Constant	2.339	.251	87.002	1	.000	10.376		

a. Variable(s) entered on step 1: Gender, Employment Length, Year Born, Job Status, Middle Manager, Oct Survey.

**Table 8. Predictive Model for employees who trust the leadership of the company**

**Variables in the Equation with Transform as Dependent Variable**

	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
							Lower	Upper
Gender	-.334	.054	38.381	1	.000	.716	.644	.796
Employment Length	-.241	.027	82.616	1	.000	.786	.746	.827
Year Born	-.089	.034	6.923	1	.009	.914	.855	.977
Step 1 <sup>a</sup> Job Status	.143	.058	6.109	1	.013	1.154	1.030	1.292
Middle Manager	-.501	.124	16.340	1	.000	.606	.475	.772
Oct Survey	-.350	.053	43.850	1	.000	.705	.635	.782
Constant	2.614	.234	124.908	1	.000	13.654		

a. Variable(s) entered on step 1: Gender, Employment Length, Year Born, Job Status, Middle Manager, Oct Survey.

**Table 9. Predictive Model for employees who are confident this company will be able to transform its business**

Tables 10 shown below and Tables 11-12 provided in Appendix 6-7, reflect significance across the same set of independent variables with the exception of year born. The dependent variables are Future Vision, Values Contribution, and Team respectively as shown in Table 10-12. When controlling for the other independent variables, middle managers are only 49% ( $B=-0.714$ ,  $\text{Exp}(B) = 0.489$ ) as likely to agree that leadership has communicated a future vision that motivates them (Table 10), only 69% ( $B=-0.378$ ,  $\text{Exp}(B) = 0.685$ ) as likely to agree that the company values their contribution (Table 11), and only 52% ( $B=-0.660$ ,  $\text{Exp}(B) = 0.517$ ) as likely as other employees to agree that they feel a part of a team (Table 12). The pattern of experienced males lack of buy-in and commitment to the company continues

to be significant. Also continuing is the significance of job status as a positive predictor variable in the regressions with the respective dependent variables of Future Vision, Values Contribution, and Team. In all of these cases, job status indicates that higher status job holders or higher job grades as they are referred to at The Company, are more likely to have beliefs that align with positive aspects of the company's present and future. This trend makes the fall-out of middle managers more curious and a critical concern for two primary reasons. First, in middle-up-down organizational structures managers occupy key positions that form the nuclei of self-organizing teams and second, in top-down hierarchical structures middle managers are primary candidate pools for future senior managers and company leaders.

**Variables in the Equation with Future Vision as Dependent Variable**

	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
							Lower	Upper
Gender	-.455	.054	71.815	1	.000	.635	.571	.705
Employment Length	-.155	.025	37.586	1	.000	.857	.815	.900
Year Born	-.040	.033	1.397	1	.237	.961	.900	1.026
Step 1 <sup>a</sup> Job Status	.551	.068	65.505	1	.000	1.735	1.519	1.983
Middle Manager	-.714	.144	24.750	1	.000	.489	.369	.649
Oct Survey	-.293	.052	31.190	1	.000	.746	.673	.827
Constant	1.541	.228	45.657	1	.000	4.669		

a. Variable(s) entered on step 1: Gender, Employment Length, Year Born, Job Status, Middle Manager, Oct Survey.

**Table 10. Predictive Model for employees who believe leadership has communicated a future vision that motivates them**

Tables 13 shown below and Table 14 provided in Appendix 8, reflect significance across the same set of independent variables with the exception of gender. It seems that gender is not a significant predictor of probability that employees agree with the beliefs that there is open, honest two-way communication (Table 13) and resources and efforts are focused on what matters most (Table 14). The results of employment length, year born, job status and middle manager are consistent with previous findings that point to lack of alignment with The Company and employee beliefs for those that are experienced with greater employee length at The Company, older, and middle manager job status.

### Variables in the Equation with Open Communication as Dependent Variable

	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
							Lower	Upper
Gender	.074	.052	2.005	1	.157	1.076	.972	1.192
Employment Length	-.221	.024	86.815	1	.000	.802	.765	.840
Year Born	-.097	.032	9.261	1	.002	.907	.852	.966
Step 1 <sup>a</sup> Job Status	.457	.058	62.957	1	.000	1.579	1.411	1.768
Middle Manager	-.679	.123	30.469	1	.000	.507	.399	.645
Oct Survey	-.356	.051	49.361	1	.000	.701	.634	.774
Constant	.774	.213	13.185	1	.000	2.169		

a. Variable(s) entered on step 1: Gender, Employment Length, Year Born, Job Status, Middle Manager, Oct Survey.

**Table 13. Predictive Model for employees who believe there is open, honest two-way communication**

The lack of confidence in The Company's future and in open communication that appears in the quantitative survey data is represented in the survey comments provided by some respondents but not all. While the comments are anonymous, gender and job level descriptions are available and noted. Shown below are February 2011 survey comments that are in response to the question, "Do you have suggestions for improving communication within the division" which was asked of all employees in all divisions. The responses, provided below (and others listed in Appendix 10), reflect beliefs across genders and job levels that demonstrate at best mixed results in both how The Company is being lead into future and its ability to exhibit honest two-way communication.

*It seems like managers are trying to figure out what the future looks like, but we're often left out of the loop. It would be helpful if the people doing the current work would be brought into some of those meetings.* (Female individual contributor, Pulse Survey February 2011)

*Everyone loves [Name of senior leader D] - it would be great to see him more!*  
(Female middle manager, Pulse Survey February 2011)

*Needs to be more open and honest, the positive spin is obvious.*  
(Female individual contributor, Pulse Survey February 2011 )

*Greater appreciation of open, honest communication - dissenting opinions are not valued in my area.* (Male middle manager, Pulse Survey February 2011)

*Communicate, communicate, communicate. I've found people in my division don't tend to share much information. They believe by retaining that knowledge, it makes them smarter and more important than you. It's all about egos. Yuck!*  
(Female individual contributor, Pulse Survey February 2011 )



Comments made in response to this same question also reflect the employees' internalization of Woodstone™ principles that launched at The Company with business transformation in 2006 and are described in section 4.5 and Appendix 14. This curriculum is also referred to as Stepping Stones.

*Honest, candid communication and assuming positive intent still seems to be an issue at times.* (Female middle manager, Pulse Survey February 2011)

*Despite Steppingstones, I do not feel comfortable having open and honest communication with my own manager. He only wants to hear positive thoughts and feedback. Anything negative is held against you. He retaliates which is unacceptable.* (Female individual contributor, Pulse Survey February 2011)

*Just follow the Woodstone principals and this could improve the overall communication from general managers down.* (Male front line supervisor, Pulse Survey February 2011)

Lastly, in October 2011 there were survey comments that echoed those from February to the question regarding suggestions for improving communication. There were also other comments that called out the need to address the growth in digital in response to, "What topics would you like to learn more about."

*Tell us what is going on, stop the double talk and innuendo and tell us how it is and how it impacts us.* (Female individual contributor, Pulse Survey October 2011)

*I wish people felt more comfortable speaking their minds and not being punished for having different views than the corporate agenda. I feel we are not challenging our agenda enough to make it as robust as it could be, but low level employees that live in the trenches are afraid to speak of improvements or ideas to make the agenda better.* (Female middle manager, Pulse Survey October 2011)

*I have communication overload which makes it hard to focus on what is important.* (Female individual contributor, Pulse Survey October 2011)

*Why we let Apple beat us to the iCards market and why our e-greetings have not evolved.* (Male individual contributor, Pulse Survey October 2011)

*Digital! What are we doing, how is it going to integrate into our daily business? Why can't we move faster?* (Female middle manager, Pulse Survey October 2011)

*How we are adapting with the ever-changing technology? It seems like other companies are beating us to new social networking and leaving us behind while we are over analyzing what to do.* (Female individual contributor, Pulse Survey October 2011)

#### 4.4 Employee interview themes and observations

The concerns raised by employees in the 2011 survey results also appear in many of the beliefs of the male, middle managers interviewed in 2013. The Pulse Follow-Up interviews suggest several serious and related root causes that are described in their words in the paragraphs that follow. The open-ended nature of the interview questions (Appendix 3) allowed for exploration of beliefs to uncover not only “what” beliefs are present but “why.” The common themes that emerge are in three distinct areas: need for transparency to improve communication and trust, increase competency in the digital connecting space, and need for effective decision-making and accountability. Overall, these beliefs appear to be critical factors that form barriers between middle and senior management and create skepticism in The Company’s future by not fostering beliefs of engagement and equally as important, stifle knowledge creation at the individual and organizational levels. What is also notable from the interviews is that while the comments are candid and indeed critical in many instances, the spirit and intent with which they were offered appeared supportive and at times, even paradoxically optimistic as opposed to defeatist in nature.

The first theme that emerged during the interviews was the need for greater “transparency” to improve communication efforts and trust within the firm. The word “transparency” was used in several instances to describe desired behaviors that embody honesty and authenticity. The first few comments describe a culture that controls the flow of information.

*The position that I’m in requires information to be shared with me and me having access to it. I am not a senior manager so there are some limitations there. But if I do need information that only a senior manager can get, 9 times out of 10 my senior supervisor will provide it for me if I ask. [Information is withheld because] I’m not a senior manager. ... Now why? I don’t know if that’s a trust factor or not, but that’s my gut. (Interview, Employee 3)*

*I think when you’re not being candid with people in meetings I think it’s pretty obvious that you’re not and that your withholding information. So the more openness and the more you share then the more people appreciate that and they feel comfortable doing the same with you if you’re open to it. There are some people that portray themselves that way whether its their personality or not, and there are some people that are just not quite there. (Interview, Employee 3)*

*There are limitations to what we actually provide and share within the company. I think that how we share is very important and what we share.... (Interview, Employee 2)*

Similar themes are echoed in the comments shown below and speak to how leadership behaviors and communication practices either build or erode levels of trust within The Company.

*I just think the more open and honest that the organization can be the more you build that trust. When there are rumors swirling and obviously there is something going on and management doesn't seek to squelch it and says that nothing is going on then something does happen...that erodes trust. You'd get farther if you'd just say we're working on X, keep doing what you're doing and we'll share it with you when it's ready or by this date. Don't say nothings going on and whisper about it in the corners... Leaders don't have to share what it is but teach senior and middle managers here's what you say when you're put in this position don't just say, no, no, nothing is going on and try to deny it...that erodes trust. (Interview, Employee 4)*

*The things that build trust - is that you're genuine. When you strip everything away...it comes back to that genuine trust. .... I think on eroding trust it's the opposite. When there is behavior of people trying to avoid difficult conversations or that you know things aren't factual. There are cases of that. You are in a meeting and someone doesn't have their facts straight and you think they are either making it up or they really don't have a good grasp of what they are supposed to know. Obviously, that erodes trust. (Interview, Employee 5)*

*I would say lack of transparency erodes trust. I think we all have a pretty good understanding financially of where we are or we may have an understanding of what's going on in the organization but when you're not having the transparency from the leadership to tell you what is truly happening, you start to distrust, it starts to build bad behavior. There was a meeting recently of middle managers and senior managers where it was the first time the leaders had the extremely transparent "this-is-where-we're-at" and it left me thinking, this is what we have needed for years. ... You walked out of there going "I want to work really hard, I want to help this company." Everybody in the organization wants to do that but right now I think everybody is losing faith, they have a lack of trust because of a feeling of lack of transparency. (Interview, Employee 8)*

The interviews found comparable beliefs to those noted in the 2011 survey comments regarding communication, specifically the fear to challenge the status quo and to speak freely and authentically.

*The other piece of the culture is where people just don't feel free enough that they can challenge the status quo with being picked out as the odd bird in the whole family. ....so the richness of the decision making, the richness of the dialogue within the company is reduced unless you have areas where those leaders have specifically encouraged people to speak up and challenge them to get a better result. (Interview, Employee 6)*

*...if your senior managers are afraid to be authentic and talk about the real things, that is a big, big problem for the company. It slows it down culturally - it slows down its ability to teach people. If they are afraid to talk to other people and be authentic, how are they going to learn about that particular area or learn about positions potentially in other areas that they are asked to go to or about their process so that they can understand what do we need to do, how can I help you out. You don't have the real stuff if you are always playing the kingdom game. (Interview, Employee 6)*

Interview comments that speak to the need to increase transparency in communication and strengthen trust also offer reflections about the beliefs of The Company's senior leaders and the corporate culture.

*There are some tremendous [senior leader] contributors that I absolutely trust – heart and soul. No question in my mind that their interests are in the best interest of the company and in the individual. That's why I've been here for 30 years. I still believe that to be true and I believe it to be true for the majority of individuals at senior manager level and above. But there still is a group of individuals that tend to push down an agenda that is less than inclusive and is really does start breaking at the trust level. (Interview, Employee 9)*

*Transparency – you feel a lot better about somebody when you feel they are being completely honest with you. You know that they can't share everything that you might want to know but if you feel they are being transparent and sharing what they can then that certainly gives you a better feeling. ... I think we're trying to become a more transparent company. We've introduced the Woodstone principles and all of that so I think we're communicating a little more effectively than we have in the past. I still believe our leadership does a better job at talking about it then demonstrating it. Talking the talk vs. walking the walk. So I think we're making progress in that area but I still would like to see corporate leaders act a little bit differently rather than just talking about it. ... I still think people have agendas that might not be in the best interest of the company, occasionally. (Interview, Employee 10)*

*I think we have a somewhat secretive culture. There have been some things that have happened the last year or two and I think I understand the reasons why but also it makes you feel "why are we doing some of these things." ... It feels like there is almost an aura of paranoia. It erodes the trust in sharing anything with anyone. ... I know it's important to preserve our competitive advantages, however, it feels like desperation and paranoia. (Interview, Employee 11)*

The final comments under the first theme of transparent communication and trust are shown below. They explicitly reflect the challenges inherent to a traditional hierarchical culture and the difficulty of corporate-wide change efforts. The example provided includes the Enterprise Resource Planning (ERP) that launched The Company's business transformation initiative in 2006 that was named Project Horizon. As of 2013, the ERP using SAP integration software to automate business processes was not fully implemented when the final installation and Project Horizon was suspended in late 2010. The point here in the scope of this study is not to argue the value of integrated enterprise level technology systems rather it is to illustrate examples of the concurrent beneficial and detrimental impact large-scale initiatives have on employee beliefs and how arduous it is to change embedded cultural behaviors.

*Yes, I think that the silos that we work in are sometimes frustrating - constraining information in that way. Getting the [various areas] on the same page...sharing information efficiently seems to be a problem. ... So I think we're making strides in that area but I think that the silos and the way we work are still constraining the way we share knowledge. ... I guess the challenge is when you don't know what you don't know. Sometimes you're not thinking you need to know a certain*

*piece of information someone has so you can't even ask the question. You don't know you have that need so that's where it gets a little more challenging. (Interview, Employee 10)*

*Project Horizon, my favorite child to pick on, everyone and their cousin knew that go-live was going to be a mess and it was - then we acted surprised. None of the leadership on the business or the technology side paid a penalty for that. (Interview, Employee 7)*

*So we went through Project Horizon, which is an ERP implementation of SAP, and at that point, we learned even more how to knock down verticals. There was a conscious choice going in that it was a business-led transformation. We were going to have to revisit the ways we worked, the ways we talked to each other so that was yet another step to break down the verticals. We are not there yet completely but I would say in the supply chain, it's to the level like 10x from where it used to be. I think other parts of the company as they have to deal with some of those same realities are trying to do the same thing—lean out their processes and as they do that, realizing that maybe it is good thing that I am to talk to and understand other parts of the business. I think the level of knowledge overall has gone up. I think there are more leaders, certainly not all, that are reaching across the aisle trying to educate themselves about what is going on and collaborating better. (Interview, Employee 6)*

There are positive indications that cultural beliefs changed during and following the cessation of Project Horizon as evidenced by behaviors demonstrating a more holistic understanding of The Company and a greater explicitly stated desire to collaborate among internal departments and divisions. Employees no longer questioned “if” there was a need for business practices to change, the question evolved to “how.” The Business Process Management training efforts in 2010 of more than three hundred US employees across various job levels provide an example that elucidates that internalization of new beliefs takes time and experience. At the opening of each formal training meeting of Foundations of Business Process, attendees were asked to play the game “Win as Much as You Can” (details noted in Appendix 11). The purpose of the game was to create interaction between attendees and reflect their acculturated beliefs through situations where players had to choose between supporting individual team interests versus behaviors that would hurt their individual team but optimize results for the group as a whole. In all group games except one, once players were split into teams and learned the ambiguous rules of how to “win as much as you can” players exhibited behaviors of competition between teams, spirited rivalry, secrecy, lack of transparent communication and mistrust. When select individuals on teams attempted to collaborate instead of compete with other teams, they were typically disregarded by their fellow teammates unless the individual was of significantly superior job status or s/he was an effective lobbyist.

Interestingly, the one group that was the exception to this behavior came from the supply chain area of the business. The behaviors demonstrated by this group of senior and middle managers were collaborative from the beginning of the game and at no time did members choose to compete as individual teams in lieu of working together to optimize the group as a whole. The group expressed they could not play any other way – they had to depend on one another for success. Just as interesting is the fact that four years earlier this group was the first at The Company to implement the philosophies and practices of Lean originating from the Toyota Product System (TPS). There is no evidence to prove a cause-effect relationship; however, the outcome in this example from 2010 was a leadership group that demonstrated greater transparency in their communication and consequently higher levels of trust among group members.

The second theme that emerged from the Pulse Follow-Up interviews in 2013 was a consistently acknowledged need for The Company to increase its corporate competency in the digital “connecting” space. Historically, The Company had varying degrees of presence and success in digital mediums. At the turn of the millennium it had a corporate website offering a variety of products that earned a ranking of number 8 in a prominent trade magazine’s top-10 list of e-tail, auction and travel sites as well as other popular publicity from industry magazines and consumer opinion poles (The Company Noon News, January & February 2001). While expanding to other platforms like digital, The Company remained committed to reinventing their core product category and set forth a goal to triple the size of their company by the year 2010. In 2001, the vision on how to achieve this was through the expansion of how they defined their business, a change in The Company’s structure, listening to consumers and new employee mindsets, new behaviors and new attitudes (The Company Noon News, February 6, 2001). In July of 2001, The Company activated what they internally messaged as an important new consumer website with ambitious year-over-year growth goals of over 500% for the first two full years following the launch. Unfortunately at that time, broadband Internet connections were not common in the home estimated at only 3% of the US adult population compared to August 2013 where 70% of US adults access the Internet at home through a broadband instead of the dial up connections common early in the millennium and only used by 3% of the US adult population today (Zickuhr & Smith, 2013).

After less than a year, The Company ended its newly launched consumer website in April 2002 due to below-plan financial results and unanticipated industry challenges including slow consumer adoption rates and lack of support from industry partners to promote the new personalized, online products (The Company Noon News, April 8, 2002). In that same year, the corporate website that was acclaimed for its e-tailing was repositioned to focus on marketing priorities in support of in-store specialty retail subsequently limiting products available for purchase online (The Company Noon News, April 10, 2002). In this same period new start-ups like Shutterfly, founded in 1999, were searching for ways to grow revenue amidst a field of 1,000 other start-ups as well as established retail goliaths like Walmart and Walgreens (Vance, 2013). In the years that followed, a new social-techno paradigm emerged that fundamentally changed the way people connect through various and increasingly personal digital devices. During an employee forum with the CEO, a middle manager asked when The Company would re-enter and aggressively compete in digital. He replied that it would be when a profitable business model is found. In contrast, returning to the Shutterfly example, when its CEO Jeffrey Housenbold joined from EBay in 2005 the former high-school and college yearbook photographer was already spending \$2000 a year on the site and believed that Shutterfly's customers were amateur, "chief memory officers" (Vance, 2013). The company grew as it put strategies in place to solve for non-holiday periods by using its digital presses for customer brochures for other businesses and acquired companies like Tiny Prints and Wedding Paper Divas to complete its portfolio and drive year-round traffic of primarily female shoppers that represent 80% of Shutterfly's business (Vance, 2013). Today in 2013, smartphone usage in the US continues to increase now representing 61% of mobile subscribers (Nielsen, 2013) and over 80% of Americans use the Internet that ranks 28<sup>th</sup> out of 211 countries (ITU, 2013).

The historical context for The Company's digital initiatives in the decade prior to the survey and follow-up interviews are necessary to understand the emotion behind the beliefs shared by the male, middle managers given the majority were employed by The Company when the digital events of the last decade transpired. In several cases, the interviewees brought up the topic of digital across various questions expressing regret that The Company has failed to make inroads in this new market.

*I think that we haven't pushed things like digital. We haven't been as quick to manage what our company stands for with consumers to make it more relevant in new spaces especially digital. (Interview, Employee 5)*

*...one of the major capabilities we need is a better digital infrastructure that we don't have right now. If we had a full digital leg for the "stool" I think we'd have a greater competitive advantage – I feel like we have two out of three legs. (Interview, Employee 12)*

*When I think of capabilities I think of actions we can take and strategies we can employ to make this company more successful but do we have the guts and the courage to act on those things. I don't believe we do. [Why?] I don't know if it's because they are very conservative individuals or if there is something they haven't shared with the rest of the employees i.e. a different strategy they haven't shared which could be the case, but in the last 10-11 years we've seen our business decline and how long do we wait is the question you ask. There are things that are out there that we - you know hindsight is 20/20 right - but should we have been the Facebook, Twitter, Google + and do we even still have that opportunity? (Interview, Employee 4)*

*Digital is ambiguous and it's vast and it's risky so we are just not comfortable going into that space aggressively because we don't have a line of sight showing me the money or showing me the revenue. ... I'm in a corporation that has chosen to prioritize the digital a little lower on the priority scale...I know my limitations and what I can put out on the table. Now if I had unlimited resources in front of me, we could do a lot more. Therefore, knowing I have the resources available. Would I like to do more and do I think there is bigger opportunity in digital? Absolutely. And therefore to answer the question, I don't have the resources in my own mind of what we could do. (Interview, Employee 8)*

Similar to the comments of the need to increase transparent communication and strengthen trust;

comments on the topic of digital also offer insights into belief's about leadership and the culture.

*I think we are really behind in the digital world. I think we need senior leaders to embrace and maybe somebody that has that skill set and background would really help us. We have a lot of ground to make up in the digital world. ... I think we should develop stronger capabilities in the digital world - we need much stronger capabilities there. ... I don't know if we're building [competitive advantages] quickly enough though.... That sense of urgency – I think we have it but I don't know we have the same sense of urgency that a publically traded company would have. I'd like to see us go after competitive advantages a little more quickly. ... I don't think we move fast enough or are forward thinking enough in the digital world. (Interview, Employee 10)*

*[Why is The Company behind in digital?] I think we dabble in it. I think we get into it and it doesn't really do much so we bail. We have to understand it could be a very expensive proposal and we don't have the intestinal fortitude to stick with it until it works. (Interview, Employee 4)*

*We've always done digital half-assed - kind of there, kind of not, kind of don't want to because we'll cannibalize the sales in our stores. ... Last week we announced a three-pronged approach about how we're going to attack it. ... So I'm really glad that we are committing to it and that we are recognizing our 20-year decline in [core product] that is only going to continue. Kudos to the [owners] because supposedly they have never said that, but that doesn't mean you take our*



*digital strategy and break it into three pieces. With three different owners, three different leads...ok, that doesn't feel like the right thing to do to attack it. (Interview, Employee 7)*

*I'm not feeling that we have the breadth of skills to do everything we're being asked to do. Digital is probably a good example. We're not digitally savvy and probably never keep up with the market...just because it's not part of our core competency. What are we asking our leaders to do in that space vs. what do we need to accomplish is maybe some gap just to be frank. (Interview, Employee 2)*

The third major theme that emerged from the Pulse Follow-Up interviews in 2013 was a consistently acknowledged need for effective decision-making and increased accountability for decisions. During business transformation, The Company's leadership had recognized the need to make decisions more quickly based on the information available and invested considerable time, training efforts and collateral materials to improve decision-making by adopting what they refer to as the Decision-Making Model (Appendix 12). Corporate officers were the first to adopt the practices outlined in the model followed by senior managers. As of 2010, it was consistently observed that in any formal meeting where a decision was to be made by senior leadership the conversation followed from the standardized decision-making model structure of frame, debate, decide, and act. Shown below are interview comments that describe beliefs that the corporate effort to improve how decisions are made has fallen short of its goal.

*...the thing that I wonder as far as a capability we have is do we have a decision making structure that lends itself to be nimble enough to react and to succeed in an ever so fast paced, moving environment. (Interview, Employee 1)*

*...I've seen senior leaders and how some of them make decisions. I don't think the due diligence that is needed is always there. There is a lot of pressure to make decisions quicker than ever which can be good but sometimes I think that not all the I's are dotted and T's are crossed to make that final decision. I think we act too quickly on some things. (Interview, Employee 3)*

*...on with the amount of meetings that we have to make a decision is...not even get to a point of a decision...is sad. I feel like there is a lack of understanding of who makes the decision. Who is the owner of that decision? It is very unclear across the board in everything on just about everything I work on. Whose decision is - this is always a key question. We have a lot of meetings to discuss but at the end of that meeting, we rarely have a decision because it has to go to this forum or that forum where the decision, hopefully, will be made at that time. ... I think we are still a very matrixed organization, the number of forums, the number of decision making forums that there are, by the time it gets to the point where I have influence, the decisions are already pretty much made. (Interview, Employee 8)*

A critical failure point in the decision-making process appears to be the lack of accountability for decisions that are made. Whether this condition in The Company is real or perceived, it exists because it is in the beliefs of employees as are the reasons for why as described below.

*Lack of accountability for results. We talk a lot about being accountable but when you look at the several situations where you don't see any official accountability so its hard to trust that its truly what is meant. There are no assurances that it is happening. (Interview, Employee 1)*

*We've hyped it up so much now that I don't know if we can realistically meet it's expectations and so if it doesn't take off or if certain parts of it aren't good, the way our rumor mill works, "Oh my god!" ... I think it's part culture and also that people are worried that if they just came out and admit that they screwed up they would be held accountable. (Interview, Employee 7)*

*...the owners are too nice. I don't think they want to look at people and say, "I'm going to fire you. I don't care how awesome an employee you've been for 20 years, but if you don't deliver the results I'm going to let you go." I get a real sense that the owners don't want to do that. ... We are usually reactionary versus proactive...I am told time and again that we didn't see that one coming. No one was fired for missing that one. But again, how did we not know that was coming? (Interview, Employee 7)*

*I think the company is absolutely too nice. It is a very generous company of course which attracts many people to the company but its that slippery slope where if we are to remain competitive and to succeed against the competitive marketplace I think we have to be a lot more methodical in the way we approach the business. We tend to do things that are "too nice" so that decisions are delayed. When you delay decisions that has other implications. (Interview, Employee 9)*

The idea of "niceness" is rooted in The Company's heritage. "Niceness was an inherent part of caring and sharing, and being nice and getting along with others were requirements of employment at [The Company]" (Lampe, 1998, p. 220). Niceness also has a dark side that was embedded in the culture, "A culture of niceness, however, made it easy for those in power to create systems that both exploited and oppressed some employees and not others. ... The culture of niceness did not allow people to question or talk about what was really going on, and implied in it was the acceptance of the way things were" (Lampe, 1998, p. 221).

While commenting on the need for improved decision-making and increased accountability, several responses from the middle managers reflect the desire for increased autonomy. From their point of view, empowering decision-makers closer to the level where the work occurs is how decision-making can be improved and is a path to increase not only accountability but also speed and trust.

*What I've seen that builds trust is pushing down decision-making. This automatically says I trust you to make the decision. I think we don't do ourselves a favor whenever we expect our most senior leaders to make all the decisions and the senior leaders don't do anyone else a favor when they make those decisions rather than saying "no, you guys can make that" .... How you take trust away is by involving too many people... "I don't trust you to actually form an opinion and make the decision, I think you need to involve 20 other people" which slows down decision making and then it becomes paralysis. (Interview, Employee 2)*

*... if you want to go faster, then give me the accountability and also give me the autonomy. That tool, I know it's a soft skill, but that tool in and of itself is probably the only thing that is limiting right now. (Interview, Employee 6)*

*I think recently sharing of information is much better than it has been in the past. I do think it ties back a little bit to the trust and decision-making structure. If I don't have decision rights or true accountability for whatever I may be trying to make a decision on, I think that hinders within our company to open up some of the dialogue back and forth and trust between one another. (Interview, Employee 1)*

*The thing I have noticed the most, kind of within the last 5 years, nearly every decision is made at such a high-level that the middle managers don't feel empowered to do really anything because all we really are now are just executors of a more grand plan.... 10 years ago, we could have a whiff and it wasn't really that big of a deal and now every miss is a big deal....more and more decisions that used to be made at lower levels are being made at higher levels. Things at the middle manager level that they used to know they no longer know because decisions are made at a higher level. I think that has "unempowered" the middle manager level. (Interview, Employee 11)*

Finally, the last interview comments regarding the third major theme of decision-making and accountability is direct feedback from interviewees on how they believe the decision-making model has been adopted by the culture. The semi-structured interview questions did not specifically inquire about decision-making practices or the decision-making model; however, when either topic surfaced in the responses to the open-ended questions, this researcher asked interviewees whether the model helped to improve the overall decision-making process of The Company. Shown below are their responses.

*Yes, absolutely very much so especially on the healthy debate portion of it. There's more of that going on today than there has been in the past. What still goes on today is your supposed to have the healthy debate, decide and act. You come to the act portion of it...and sometimes after the act happens it gets pushed back to the debate...because people are in a room and something is revisited and they have a different point of view. Sometimes it because they have new information but in this case, they didn't like the decision and changed it... The decision making model has put everyone on the same page so when you come to a meeting you frame it, debate it, decide and let's act. We try to follow that format and when we don't, we're challenged to do that....I think that's working....even though we're still not quite where we need to be. There is still some hesitation in healthy debate portion of it. There are more people that participate in the healthy debate and some people that don't even though they want to. (Interview, Employee 3)*

*I think some of the misses that our senior manager have is when they are in the meeting and there is healthy debate with people that are not participating they don't call them out. They should be called out because that person has a point of view but that person may not want to share because they are uncomfortable. The senior managers that get the best results are those that call people out in a nice way.... (Interview, Employee 3)*

*I think it's helpful in what it's supposed to do which is make it quick and make it a process that is getting you to the root of the issue, to get to some likely decisions or options. What I don't think it allows you to do is to really pull back and talk through all of the other options that might be out there because at the end of the day what it has done is created a structure that is to get the problem solved quickly and efficiently versus going in and having a discussion, getting everybody on the same page, having a big conversation on some of the different types of thinking that's in that room. It gets you down to "we've got to move on, we've got to move on, we've got to move on because I have to have a decision when I walk out of this room." [Researcher: Do you think there is a missed opportunity there?] Oh, most definitely, most definitely. (Interview, Employee 8)*

The comment above points to missed opportunity for knowledge creation when decisions must be made within specific time constraints that are most commonly during an hour meeting. Shown below are the remaining responses to the question whether the model helped to improve the overall decision-making.

Comments reiterate the point that decision-making is not empowered at the level where the work occurs.

*I don't think so, no. Not necessarily the model, but maybe the structure. I think what we're kind of hung up now is in an era of heavy cost cutting which leads to decision-making structure that has to funnel up to the top entirely too much. (Interview, Employee 1)*

*I think it has helped but what I've heard comments more or less about how it's used. It's probably not used as frequently as it needs to and being used as far down in the organization as it should be. So, yeah, our senior leaders are doing an effective job of lets frame it, debate it and then we'll decide. But once you get down below their level how often do you see just a middle manager saying, "hey, we're going to use the frame and debate model because I need input from all those that are influencers" and it's declared that that particular manager is making that decision....I don't see much of that. (Interview, Employee 2)*

*Yes, I do think the decision making model has helped. Maybe I'm just not in enough meetings with that...I don't see that widely as adopted yet. Maybe it's because I'm not in the level of meeting where that's employed. (Interview, Employee 10)*

*I think when its used and its effective, however, I think only the senior people really use it on a regular basis and I think the middle managers use it to tee up decisions to senior managers but I don't think its used at the middle manager levels very effectively. (Interview, Employee 11)*

## 4.5 Unintended consequences and unpredicted outcomes

**Unintended Consequences.** The three major themes of beliefs from the middle manager interviews reveal fundamental reasons why these employees do not demonstrate attitudinal engagement. The reality they depict in the interviews is not in alignment with the stated corporate vision of creating a “more emotionally connected world by making a genuine difference in every life, every day” (The Company intranet). Corporate behaviors that disconnect from the vision appear in the lack of success in the emerging digital space and lack of dedicated pursuit to stated corporate culture changes intended to strengthen authentic communication, trust, and decision-making processes. Shortcomings in these areas appear to have related and other unintended consequences: lack of confidence and lack of risk taking. Recall the main goal of organizational knowledge creation theory is to recognize conditions that enable knowledge creation so that innovation and learning can improve. Firms and the communities of practice within them that fail to instill the *confidence* and *trust* required for employees to take risk are not settings where *new* knowledge can easily be created and cultivated. “While a community of practice is a living place where the members learn knowledge that is embedded in the community, *ba* is a living place where new knowledge is created” (Nonaka, Toyama, Konno, 2000, p. 15). The key idea to comprehend the concept of *ba* is “interaction” – knowledge is created through interactions with others and *ba* is their shared context that evolves as they do. For *ba* and the dynamic process of knowledge-creating to thrive, it must have the necessary conditions – trust, care, commitment, creative chaos, requisite variety, redundancy, and autonomy (Nonaka et al, 2000).

The first unintended consequence to discuss is lack of confidence. The interviews uncover a cultural preoccupation with building consensus, being “nice”, and a need for heroics that point to a lack of confidence in the organization’s knowledge system and business processes. From a knowledge-creating viewpoint, employees do not have the necessary conditions to create new knowledge, most notably trust and autonomy. This is problematic when, as discussed in the introduction, competition is a war of movement whereby success depends on anticipating market trends and the speed in meeting customer needs. Shown below are consensus-building beliefs that include behaviors within and across groups

revealing leadership behaviors where stated expectations do not match reality. When leaders' behaviors are inconsistent with their messages, trust and autonomy cannot exist.

*We have a very consensus-building culture and while that can be good I think it can be kind of a hindrance. Our standard way of business involves a lot of meetings, a lot of approvals and a lot of consensus and I think sometimes that makes you slow down and not move as fast.*  
(Interview, Employee 12)

*I think the company is articulating that they want individuals to contribute and be engaged and to be inclusive but there is very little receptivity for that at the end of the day by the senior managers. ... I think there is a contingent that absolutely is inviting folks to contribute and to make a difference and again, we see that at an individual level but if you step back and look at it from a much broader perspective sadly it feels... "get on board and if you're not on board then there's the door." (Interview, Employee 9)*

*You lost all that capacity or wasted it, lost because someone was not trusted, not heard. In Lean one of the wastes is intellectual waste. If you break the trust of someone or they break trust with you and it gets passed on and typically it does in an organization, people will talk to other people. "You're going to work for that person, man here's what they did?" It just harms the organization all the way around. (Interview, Employee 6)*

"Nice" appears again and again across the interviews and seem to describe a culture full of boundaries and inauthentic behavior as shown below. People and experiences that are inauthentic and do not promote confidence in individuals so they are free to share their true beliefs despite The Company's investment in developmental programs such as Woodstone™. The seemingly successful and widely adopted training program addressed deep-rooted cultural beliefs at The Company and the psychology of human behavior so that barriers could be removed and new expectations put in place such as the "Wood stone principles" adopted by The Company (Appendix 14). From the interviews, it appears the top-down effort to establish a new foundation for shared contexts to take root is not sustainable.

*...we are a culture of being so nice and just not being able to be direct and give your opinion. As a middle level manager it's very difficult to really stand up at a senior management meeting and look at a senior manager and say "I don't agree with you at all and here's why" because I think that is looked at as career suicide if you do that. I think they have tried to foster an environment where you should feel comfortable with that and open the door for you to do that and we want you to do that but the insult is we've seen behavior over the past few years that show that that is not actually true. The actions and the behaviors of those who did do that actually didn't pay off for them. So, I think it makes people very nervous to challenge in forums where they are sitting there in disagreement not feeling good about the direction we are going but nobody says anything. (Interview, Employee 8)*

*I also think that Woodstone, while it was hard for me – I didn't enjoy the time but yet when I look back, the organization needed that because it really was something about our culture. We were*

*afraid to speak up. We were afraid to...and we were overly nice and we were afraid to be confrontational so I think that was really worthy. It was really diving down deep. I felt that someone was able to see that this was a problem and found something that seemed to be pretty effective for the organization and I know it was really effective for a time. We're getting back into that conservative behavior all over again for a number of reasons probably.*  
(Interview, Employee 8)

Michael Hammer (1996) wrote that entrepreneurs are the “quintessential American folk heroes” whose ingenuity and creative spirit “energizes a workplace with a can-do atmosphere and an obsession with providing customer value” (p. 68). The dark side of the entrepreneurial spirit is fear – fear of failure and being bested by competitors. For an organization, “the presence of Heroes is a sign of defective processes, whereas the reliance on Stars betrays a lack of appreciation of processes and their importance (p. 103). In other words, when an abundance of “Heroes” and “Stars” exist it suggests the organization does not have the processes and capabilities it needs to succeed without them. If confidence is not threatened by their existence when they are present in the organization, it will be when they inevitably leave. What is more, when strong performers are habitually over leveraged it can lead to their burnout.

*...people have generally been rewarded or promoted because of their ability to perform heroics. When you have to perform heroics that mean your process isn't working very well. Either you haven't designed or built it, or it's not flexible enough, whatever. I think that directly influences the kinds of leaders you get. ... We manage in crisis, the company almost encourages thriving in a crisis even though we say we don't, we do. It's under the radar. It is one of those things that are reinforced in the culture.* (Interview, Employee 6)

*I think heroics have become an expectation of peoples' jobs where that used to be an “exceed” of expectations now it is an “achieve.”* (Interview, Employee 11)

The second unintended consequence is lack of risk taking. The aversion to risk taking that surfaced in the interviews appear to come from a combination of factors including fear of failure, cognitive biases that likely influence behavior, and a variety of acculturated behaviors that have developed over time such as beliefs The Company is too slow to change and an over reliance on meetings which appear in the comments shown below and in the others that follow.

*I think we are very hierarchical. I think we've probably always have been.... I think we're over meeting'd, over emailed, but I think that's also part of The Company's way to have such grand dialogue on every single issue because we cannot afford to fail.* (Interview, Employee 11)

*I think it's OK to fail...that atmosphere is there but I think some of the things that we could really fail on we don't even give a try so again it's the out there things that we really don't even get to push on to see if we really could change things – those don't happen. Don't happen because of risk averseness or they have knowledge of something else that we shouldn't go down that path. (Interview, Employee 1)*

*We have a very careful, conservative culture. (Interview, Employee 6)*

*I think risk-taking is another big one - if you got people that have to funnel everything up to the top you don't get people taking many chances, they may be over analyzing to make a decision that they could have made by themselves. I think accountability kind of goes out the window. If everything funnels up then less people feel accountable at the middle manager level since the decisions are ultimately being made at the top. (Interview, Employee 1)*

Beliefs relating to leadership behaviors as shared in the interviews allude to cognitive biases that may be unrecognized such as anchoring and competitor neglect. These appear in the interview quotes that follow and that have appeared previously in comments and observations discussed in section 4.4 in regards to The Company's digital competencies. The anchoring effect is the strongest and most prevalent biases that results from the human mind's tendency to focus on the initial piece of information to make subsequent judgments and decisions (Kahneman, 2011). In the case of The Company, expectations for new product initiatives can be referenced against or "anchored" to known performances of mature product categories. What is more, because initial proposals may accentuate the positive to make the case for activation, initial estimates will tilt subsequent forecasts toward overoptimism (Lovallo & Kahneman, 2003). Competitor neglect is the focus on one's own plans and organizational capabilities while underestimating the likelihood of negative events and the strengths of rivals. Lovallo & Kahneman (2003) warn that, "Neglecting competitors can be particularly destructive in efforts to enter new markets. When a company identifies a rapidly growing market well suited to its products and capabilities, it will often rush to gain a beachhead in it investing heavily in production capacity and marketing" (p.60). Unfortunately, many other competitors also target the market and as all the firms invest, supply can outstrip demand rendering the new market unprofitable.

*I think our expectations going in are more stretch goals than realistic goals. (Interview, Employee 11)*



*I think our leadership is highly risk-averse but they don't think of themselves as risk averse. I have an example of that. There was a [specific senior management] leadership team meeting where I heard someone say, "You know, we've been told on Kenexa that we are risk averse. We're not risk averse but they haven't shown me a line of sight about how to get to a revenue stream on this." And I thought you've just defined risk averse. Hello. Because you don't always have all of the data and we are such a data rich company. Now we are entering a territory where we don't have all the data and it's paralyzing us. Because when I don't have all of that data, I either can't make a decision, I'm speaking my opinion only of what I would do and what I would buy or I don't have enough data to show me this is actually going to drive revenue and profits – so it's no. If we keep doing that, we are just going to continue down every conservative path that we have been and I don't see the growth potential. (Interview, Employee 8)*

Finally, there is an abundance of comments that denote acculturated organizational behaviors indicating beliefs that the organization and the people are slow to change and of an over reliance on meetings.

Shown below are comments that highlight beliefs of the lack of change.

*I trust [leadership's] business sense particularly at the executive level. They either came from outside the company or grew up within the company and had some pretty good varying experiences on [specific senior management] leadership team. So on the business side, not a problem. Within that same vein though, it still gets back to this willingness to step out and lead. People don't feel comfortable particularly because this is such a consensus-driven culture. ... At the [specific senior management] leadership team level I feel good about the business. I don't think they are stepping out. I think they are in a very challenging business environment. I've heard the excuse before that "It takes a long time to turn a ship around." An aircraft carrier can turn around in 3-1/2 minutes if the planes are not on the deck. I think that analogy has grown very old with me. Even though the company is more than 100 years old, it could turn itself around and get into new ventures but you have to be willing to take more risks. (Interview, Employee 6)*

*You got a lot of people with The Company who have been here 20-30 years. They are not comfortable stepping out of their shell and pushing change. We are used to doing things a certain way, had a lot of initiative beat out is a harsher way to describe it but probably the easiest way. ... Attitude reflects leadership so if my leaders don't act with a sense of urgency, if they don't act like they are driven, if are not pushing their employees to change and exhibiting that behavior themselves then why are your employees going to do that? Some of your top performers will naturally do that no matter what you do. You are not going to galvanize the other 95% of the work force to strive for success if they are looking to their leadership.... (Interview, Employee 7)*

As for the over reliance and abundance of meetings, Jason Fried co-found and president of 37 Signals that creates collaboration software said in his 2010 TED Talk that "over collaboration" is a disease that most companies have and the real problems to getting work done are M&M – managers and the meetings.

Shown below are comments that illustrate over collaboration that seems to also inhibit risk taking.

*We always have the "meeting after the meeting" conversations within the company. I think the investment that [The Company] has made in Woodstone and various Kenexa resources has done a lot to help elevate understanding amongst both employees and managers that you have to talk openly. I think that's been a positive so I think there are a lot of conversations that are going.*

*But I still think there is a mindset within the company that is very hierarchical that they tend not to push questions up or ask those tough questions so I think there that's...we're seeing progress but not to the level that we need to have breakthrough thinking. Think that's what we're waiting on at this point to be given the ability and the leash to have those tough conversations with our leaders and right now there is very little receptivity to that and I think a lot of that again is being dictated by nature of the change and the shift within the business from a strategy standpoint. (Interview, Employee 9)*

*Most of the knowledge sharing that we have is sitting through meetings...short meetings, long meetings, medium meetings. I believe a lot of knowledge is shared during these meetings, but there's still...the challenges we've had with meeting over the years are still are predominate today which is the meeting before the meeting and the meetings after the meeting. And I don't care what anybody says i.e. when people say that we will not nix you based on what you say I've seen otherwise. And so, there's a trust factor that there depending on who's in the room I might not be as open to asking certain questions or certain comments. I think that still goes on today. I know I experience it personally. The meeting before the meeting is all about lobbying and the meeting after the meeting is "hey, here's what I really think." Now, I will tell you I try not to do that, but in some cases I find myself doing that personally which I'm not happy about but it just depends whose in the meeting. Sometimes, I'm not asked for my point of view because I'm not a senior manager and other senior managers are in the room that are asked for their point of view. (Interview, Employee 3)*

*I think it is really is helpful – knowing what the purpose of the meeting is, who the decision maker is...I think those are all really valuable things to come to meetings equipped with but I don't think people have programmed themselves to think about it that way. What that means is there are a lot of meetings that are not as valuable as they could be....(Interview, Employee 10)*

**Unpredicted Outcomes.** Trust in the senior leaders and achieving success through competitive advantages created by “engaged” employees cannot be predicted. What is known is that there is not a high level of trust in the skills and talents of senior leaders at The Company as a result of not achieving success and building the competitive advantages that middle managers perceive as vital. Despite efforts to inspire company leaders years earlier in a “leadership model for the future” (Appendix 13), it does not appear they have effectively instilled confidence in their skills and talents. Provided below are answers to question #9 (Appendix 3) that asks do you trust the skills and talents of senior leaders.

*I do for the most part. I don't know if we have the right talent in some of our senior leaders. I do for the most part trust senior leaders and their skills. My two cents on that is we are in a product category where most of our shoppers are women. So honestly this is coming from a man, I would like to see more middle and upper level managers be women that are using our product consistently and have that deeper understanding of what our customers are looking for. So that's one hole for us, I think we need more women with opportunities or in positions like that. (Interview, Employee 10)*

*I do not. I think they are smart people. I just don't think they are equipped to lead us through a time and the position that our organization is facing...and the challenges that our organization is facing. I think they are good leaders for leading an organization that is conservative, cash rich, and ok with not growing, but to go into new spaces, to grow, to go into highly ambiguous places and to take a lot of risk - absolutely not. (Interview, Employee 8)*

*Goes back to the recent results of the business. I think that raises the question of talent of our senior leaders. (Interview, Employee 1)*

*I think our strategies are a little too short-term focused. Having a longer-term strategy of where we need to win and identifying how is really important.... (Interview, Employee 2)*

As interviewees answered the question about the skills and talents of senior leaders, many middle managers also described the skills and talents that they want exhibited by company leaders in order for the organization to grow both in revenue and in human talent development.

*I strongly believe leadership is very, very different from managing. I don't see leaders who will try to do the right thing by themselves. There are some cases their own integrity is not there to do it. In other cases, like I said before, they are afraid their peers and/or bosses will step on them for being real and speaking their truth. I think this company, like most companies, says people are the most important resource and yet if we really broke down the time, how much time is really spent on their people development they would be shocked. ... If leaders don't do that, people either leave the company or stagnate in place and you also lose the ability to have a richness in future leaders at higher levels. ...the mantra out there today tends to be "your career is in your hands" - I think that is a leadership copout. (Interview, Employee 6)*

*[Good leaders] are transparent. They are smart enough to know what they don't know and they leverage their status. They get out of people's way. They guide and correct versus command. They add their thought leadership where it is needed. (Interview, Employee 7)*

*I think the biggest skill and talent you want is that [senior leaders] are inspiring. They are leading the charge and you will follow them because you want to win. I don't see that. (Interview, Employee 5)*

*I'm naively optimistic that we're going to dig out of this I think at the end of the day the real challenge that we're having is again to create an inclusive environment at the level that I operate to understand where I fit and quite frankly the 400+ employees that I'm managing fit. Because I think at the end of the day that's our greatest resource and we don't want to talk about that. ... It's more about survival and yet, the thing we heard from senior managers that our company is more financially healthy than it has been in years. So there are a lot of folks scratching their head saying, "if that's the case then show us a path to a future that's not shackled." Let us chase some things and make investments that are in our long-term best interest as opposed to reacting. We are just in a very reactionary mode today. (Interview, Employee 9)*

*I struggle that we are growing the right kind of leaders for the company and that we are not aggressively pursuing some turnover in our work force that I think we should. The company has a very long average tenure...that really just promotes loyalty to the company. We have that lack of both, younger and fresh perspective such as experienced hires from the outside that is making it much harder for us to realize the vision that is laid out by The Company. (Interview, Employee 7)*

Notable in the description below of the skills and talents this middle manager wants to see, is the current divide that exists between middle managers and the leadership of the company. In this example, the interviewee describes company leadership that is detached as evidenced by their surprise of the 2013 employee engagement results. Given the results discussed in this study, this “surprise” was predictable.

*Sharing information and building a business case - once you include people in the conversation and help them understand what the end-game strategy looks like you build trust, you build inclusiveness, you build engagement. A telling example of the lack of engagement was the latest Kenexa survey that was probably one of the worst scores this company has had since we've measured it. What is even more surprising is that it surprised the senior managers and corporate officers within the company. The fact they were surprised was very telling and I think they drive that. The interesting thing is that when you have an ownership group come out in a meeting and acknowledge that and look at the audience and say they are disappointed in the audience...i.e. middle managers....that they are not feeling as engaged as the people that are working for them then that is very telling as to the amount of distance between the senior management that is leading the company and the employees that support them. (Interview, Employee 9)*

Shown below are comments that provide a snapshot-in-time of middle manager beliefs whether the company is or is not building competitive advantages (question #10, Appendix 3).

*I feel very optimistic that there are some very, very smart folks that are running the company, a lot smarter than I am, that are making choices that are putting us in a position to win. (Interview, Employee 9)*

*When I look at capabilities I think in terms of basics...do we make a good product, do we make a product that people want, do we have distribution, all those things are yes. But when you start to say why don't we grow then I think it has a lot to do with more strategic types of decisions. (Interview, Employee 5)*

*I think leadership has a very strong dug-in point of view in the way our brand needs to be presented and I'm not certain that may be the correct course and I think it is so ingrained in our culture that it prevents us from seeing other opportunities to move forward and grow. (Interview, Employee 11)*

As with the comment above, in many cases middle managers described what should be done to bolster existing and/or create new advantages that included renewed assessment of marketplace conditions, and candid reassessment of corporate strategies and capabilities.

*I think the tools are all there to succeed. I do think that there has to be recognition of where the [core product] market has been and we've known its been declining for 20 years. So what are we going to do about that? Are we going to face reality and try to deal with that directly or just say “well, we're trying to work on building the category back up” - two different things. The Company needs to reframe some of the challenges and some of the assumptions that it has run under. (Interview, Employee 6)*

*I think we need to redefine what our capabilities are. I think capabilities exist in the organization, but I think what we have relied on in the past in our core capabilities may not be core abilities anymore. (Interview, Employee 8)*

*There is a lot of talk – the words seem positive about Omni channel and bringing someone on with experience. I think that as long as that person is allowed to do what s/he needs to do in order to move things forward and not have an old company paradigm of “well, we can’t hurt that aspect of our business so you can’t go and do that” type of thing. We have to have everything looking forward. Let’s lead from a viewpoint of what do we want the company to look like in 20 years then let’s drive to it. (Interview, Employee 11)*

At the conclusion of all Pulse Follow-Up interviews, the employees were asked if they could agree with all four of the questions used to measure engagement (Appendix 2, #18-22). In all cases, employees were not able to answer yes to all questions. There was a consistent pattern in their responses around concern for the future and continued pride in The Company today. Interviewees unanimously agreed with the question “They are proud to work for this company.”

*I don’t know today if someone is starting his or her career I could recommend The Company as a place of employment. When I started I had a lot of opportunity for growth and over my career every few years I had a different opportunity to broaden my skills sets...I’m not so sure someone out of school would have that opportunity in the future...positions or salaries commensurate with the marketplace.... I will say am I proud to work for a company like [The Company]. ... That’s what keeps me here. I think there is a tremendous opportunity to impact the lives of people everyday. (Interview, Employee 2)*

*I worry about the company and very much appreciate the support I’ve had with the company. They have given me a great opportunity. I work as hard today as I ever have in my life. I enjoy what I do and the people that I work with. I truly believe in this company and our customers...I still believe in the brand and I still believe in the company. (Interview, Employee 3)*

*The culture is still great. You don’t get a place that cares about people like this place does. We are so focused and grounded on that that it scares me sometimes though. (Interview, Employee 7)*

*I am proud to work at [The Company]. I don’t know if I’d refer my own kids when they get out in the workforce because I need to feel a little more confident in the future of the company. (Interview, Employee 10)*

Pride does significantly correlate to beliefs of future success (Appendix 9); however, it has a weaker correlation than the other variables discussed. It can also be argued that feelings of pride are rooted in the past and in employees who experienced years of success. Pride will not be sustainable for either experienced or new employees if future years reveal under performance and loss of brand relevance.

*I've always been intrigued by the engagement survey just because I can't answer yes to these questions doesn't mean that I'm not engaged. If I hadn't been engaged with this company I wouldn't have been here 26 years so engagement is a misnomer in terms of how it is being interpreted. I come to work...and I'm not in a vacuum in this situation many employees are engaged they have a lot invested in this company and want it to succeed. Just because I can't say I rarely think about looking for a new job doesn't mean I'm less engaged. You have to look out for yourself, too (Interview, Employee 4)*

*At the senior manager level, I do think for whatever reason that our senior managers in general its almost like when you get to that level you're more worried about irritating any of your peers because you got to a high level, high pay, high amount of people you have to manage or product whatever that is. It seems that is a greater elevation with the company, maybe not. Maybe other corporations do the same thing. So it's those leaders, the best ones are letting the middle managers do what they do best which is execute, set the strategy, figure out some of the basic skeleton if you're a senior manager then let them run. But instead, our senior manager corps often times feels that they have to be hands-on. And again, ultimately that all gets back to control. Ultimately you have to be vulnerable, you have to be willing to relinquish some control and trust other people. That's the only way those other people are going to have their own failures. They won't be a big failure right, they will have little failures and they're learning. They might be the next North American Leadership Team in 10 years. But if they don't, then guess what if they get promoted to the higher level, they are going to be very risk averse because they have always been successful with the easy low-bar stuff and never had a chance to fail forward. I think failing forward is the just most important thing for all of us, right? Most of us didn't get up on a bike and ride off into the sunset. We fell down and scraped our knees and learned from that. If we fail forward eventually we can all ride a bike. (Interview, Employee 6)*

#### **4.6 Post employment interviews**

Interviews with two individuals choosing to no longer work at The Company affirm many of the beliefs from current employees previously discussed and offer additional depth and perspective about the social practices and leadership behaviors present in the corporate culture. Specifically, there were obstacles these former middle managers believed inhibited performance and their ability to learn: inconsistent appreciation of new thought and skills sets, lack of enabling and tenacious leadership, and denial of competitive threats. The first, beliefs of inconsistent appreciation for new ideas and skills sets are represented in comments, shown below, that describe shared contexts with inconsistent levels of trust, care, commitment, creative chaos, requisite variety, redundancy, and autonomy.

*The Company struggled to appreciate niche values - niche skill sets and liked to have a lot of generalists. That's all good and well, but when you perform and you do great things in a particular space, you don't have the value recognized. At some point you start to wonder if your performance matters. In general I would say that the culture there was not one that neither fostered nor encouraged exceptional performance. (Interview, Former Employee #1)*

*I think I learned the most when the organization was sprinkled with outside perspectives. The Company does a lot of advancement from within which is great potential for people to grow within the organization. I think the organization is at a point of stagnation and needs some additional outside perspective to let it be more flexible to learn and grow. I would find myself getting a little stagnant in a couple of ways 1) complacency...it's rampant in an older organization where everyone is complacent and happy with the way things run and 2) without an outside perspective one might not take on new experiences. I always did and learned the most when I would have someone mentor me from the outside. (Interview, Former Employee #2)*

*When I got there, the culture had been so successful in the way it performed that people felt that challenging the status quo was sacrilegious. That created a very passive-aggressive culture where everybody knew there were challenges and problems but you certainly didn't put them at the forefront. Towards the end of my time there, I think that passive-aggressive behavior gave way to a more candid environment but that candor was sporadically accepted. In some places it was appreciated and in others a person could be fired for it. So I just think that manifested socially. Everybody was very friendly, certainly interested in you personally, but I'm not sure there were healthy business practices that allowed you to grow. (Interview, Former Employee #1)*

*I think that The Company has an ego – as a corporate culture. There is an unwillingness to seek outside perspectives on a consistent basis. There is a willingness to work with a consultant when The Company thinks it's important but there is a lot of outside perspective that comes proactively that is not accepted. (Interview, Former Employee #2)*

Second, the lack of enabling leadership appears to be an obstacle that former middle managers believed inhibited performance and their ability to learn. Specifically, shown below are comments that indicate the need for leaders that are capable of leading through times of intense change, leaders who welcome ideas that are contrary to their own, and those who can empower new and sustainable capabilities.

*It needs different kinds of leaders. What happens, you have leaders who don't understand leadership amid change then they reject it. They consider it counter to The Company's culture. Personally, it was something where I could never be successful. I never felt I was rewarded for taking challenges or risks. I never felt I was rewarded for true leadership moments. I never felt those things were valued – I felt like what was valued was the networking, the conversations—which were all good but it just isn't how you change a company. That may be how you tweak and hone a company but you don't change a company with that kind of leadership. (Interview, Former Employee #1)*

*One of the interesting things about The Company coming from a military background, I knew about hierarchy, I knew about the respect that is given to each level but The Company was extreme in it. In the Army even though there were levels, it practiced a servant leadership model that was the idea that the leader was there to make sure their troops had what they needed to be successful, not just there to direct and look good. I'm not saying that in general about The Company, but there were lots of leaders who embodied that. ... I had senior managers who would almost view an opinion counter to theirs as insubordinate. It always confused me because as a leader, I always want people smarter than I am on my team. They keep me from doing something really stupid. The smarter they are the less management they need. That was viewed in*

*The Company as almost insubordinate. I never understood culturally how that came to be. I even read The Company's history to know just what the different leadership models were and I never could understand it. That comes from somewhere. It comes from a really good idea that gets deluded and eroded over time into something that it's not. (Interview, Former Employee #1)*

*The people who are in the leadership roles are the people who are successful in an environment where everything is good, so you need a different kind of leader in an environment that requires change and challenge. You don't have the same leaders who were rewarded for status quo, passive-aggressive behaviors. (Interview, Former Employee #1)*

*I think we have a lot of incredibly intelligent leaders. There's not a single one that I would say is not savvy. I think unfortunately they are bred within the walls of the organization so some of the behaviors are based on some of the things I just talked about – the "comfortable" behaviors. The vast majority of leaders came in out of college and I don't think a lot of people know how to push the right direction, how to force urgency, how to force complex decision-making, inspire clever problem solving. I think there is a lot of comfort there. (Interview, Former Employee #2)*

*The problem with The Company is it doesn't stick, if it doesn't have the leadership support. Something that is really good for a year, we can't sustain it beyond that but true change takes four years to implement and see value. (Interview, Former Employee #1)*

*In the organization I'm in now there's something called an empowerment charter. It focuses on pushing the decision-making down to make sure people feel like they can move the business in the direction it needs to go and having senior leadership inspire and guide. So inspire and guide at the top level but the bottom is accountable for the decisions. Even though The Company says they want to push decisions down, everyone really leans on the senior leaders to make the calls.*

Following the response above, this researcher asked this former middle manager if he believed there is accountability for the decisions at The Company. His answer is provided below, along with his beliefs about why leaders are not held accountable.

*No, otherwise there would be a lot less of the senior leaders there. If success equated to advancement at The Company it would be a totally different story. There are people that are consistently making decisions that are wrong – totally wrong and are not held accountable for making those decisions. They continue to advance and they continue in senior leadership roles.*

*I think senior leaders there become family. It's very hard to let people go that are friends. (Interview, Former Employee #2)*

The third and final obstacle that former middle managers believed inhibited performance and their ability to learn is the pervasive denial of competitive threats. Shown below are the descriptions that support the earlier supposition of cognitive biases – specifically competitor neglect that contributes to over optimism.

*I think in general what's rewarded consistently are people who have nice, well thought of demeanors. At the end of the day you don't beat people in a "cage fight" by being nice, you got to fight. You have to bring the fighters to that fight. It doesn't mean the culture dies it just means that it evolves. (Interview, Former Employee #1)*



*I think they try to make it a learning culture. People try to stay open but I think there is a lot of passive...passive aggressive is the wrong word...but a lot of things said in meetings where once you left a meeting things fell apart because it was a culture of choice and options. We were never pushed aggressively until we were forced. So a lot of the advancements in the organization happen happened out of a forced nature.... We're amazing when we are forced into action but our social practices - the way we interact is very polite, very calm, we talk about driving change and being proactive but when everyone leaves the room they go along their merry way and it's optional because they are not measured on that aggressiveness. ... I don't think people feel the dramatic nature of the business. I don't know how they feel it because no one is impacted until recently when people are let go. Now they felt it. I think we never made things real for our employees. (Interview, Former Employee #2)*

*One of the best things I've learned here at my present company is how strongly we compete with our competitors, how closely we follow what they do, how we know who they hired, how we know what their programs look like, we know their relationships to their customers. It's more than just saying they are competitors, it is saying we are against them in this fight. The Company struggled even acknowledging it had competitors and struggled to acknowledge the need to worry about them. The last 20 years has been different than the first 80. (Interview, Former Employee #1)*

#### **4.7 Summary of results**

The attitudinal engagement measure of employee engagement defined by The Company does not measure behavioral engagement, rather it's goal is to measure psychological affiliation with The Company so employees know and more importantly *feel* that what they are doing every day is more than "just a job." While this goal is admirable, and indeed aspirational, it appears to come with a negative backlash when employees do not perceive that the social practices and leadership behaviors they experience within the organization enable their success or The Company's. This is true for middle managers with many years of experience at the firm and in many cases is especially true for male middle managers. According to 2011 Pulse Survey data, tenured male middle managers are less likely to agree with all four questions used to measure engagement despite a greater likelihood of this occurring as job status increases from individual contributor up to senior manager. Middle managers are less likely than other employees to agree that they believe the company has an outstanding future, that they trust the leadership of the company, and that they are confident this company will be able to transform its business. For these same questions, male middle managers were less likely than females to agree. Similar patters

were found across other questions indicating a pattern where middle managers, especially males with years of experience, appear from the data to lack buy-in and commitment to the company and its future.

Interviews with male middle managers reveal that while they are frustrated with the lack of positive business results and take issue with some of the social practices and leadership behaviors within the company, they remain proud to work for The Company and care about making contributions to its success. The interviews revealed patterns of experiences that form their beliefs that are not available from the quantitative survey data. Common themes were uncovered in three distinct areas. First, the need these employees have for transparency from senior leaders to improve communication and trust. Second, the inability to innovate in the digital space that emerged over the last decade is a source of deep disappointment and regret that contributes to the concerns many of these employees have for the capabilities of The Company and its leaders. Third, the interviews reveal beliefs that decision-making and accountability must be improved across the organization. These beliefs appear to be critical factors that create barriers between middle and senior management and create skepticism in The Company's future. More importantly, these beliefs appear to stifle knowledge creation at the individual and organizational levels. What is also notable from the interviews is that while the comments are candid and indeed critical in many instances, the spirit and intent with which they were offered appeared supportive and at times, even paradoxically optimistic as opposed to defeatist in nature.

The post employment interviews confirm many of the beliefs from current employees and elaborate on the social practices and leadership behaviors in the culture that act as obstacles. They believed inconsistent appreciation for new thought and skills sets, lack of enabling and tenacious leadership, and denial of competitive threats inhibited performance and their ability to learn.

The common themes of transparency, digital innovation, and decision-making and accountability seem to be symptoms of a top-down management model and hierarchical structure that no longer is healthy nor productive for The Company. Present at the firm are leaders perceived as "commanders" that create a culture where employees are highly dependent on top management. The backlash the organization is experiencing appears to be an outcome of this firm's top-down management style that has

only intensified due to the challenging business climate and several years of unsatisfactory business results. Created is a belief divide that separates senior leaders from the middle managers they are to lead. This has severe and unintended consequences that can fuel lack of both confidence and risk taking. Business firms and the communities of practice within them that fail to instill the confidence and trust required for employees to take risk are not settings where *new* knowledge can easily be created and cultivated thereby limiting knowledge creation that powers learning, innovation and competitive advantage.

## CHAPTER 5: CONCLUSION AND DISCUSSIONS

The purpose of this final chapter is to provide a brief overview of the study that begins with the research summary and discuss the main findings that specifically answer the central questions that were posed in the introduction. The first question was to explore corporate learning using the theory of organizational knowledge creation and one US based corporation to determine the theory's relevance to American firms. The second was to understand how social practices and leadership behaviors affect employee knowledge, or "true beliefs," and thus the implications to the firm's knowledge creation and ultimately, its competitive advantage. The chapter concludes with the implications of the study, its limitations and suggestions for further research.

### 5.1 Research summary

The mixed methods case study was undertaken to explore the theory of organizational knowledge creation in one relatively homogenous US based corporation to determine its relevance in America. The research also attempted to understand how social practices and leadership behaviors affect employee knowledge, or "true beliefs," and thus the implications to the firm's knowledge creation and competitive advantage. Nonaka's theory of organizational knowledge creation, developed over the last twenty years with his associates in non-US firms, was used as the framework to examine the extent to which internal factors such as social practices and leadership behaviors affect knowledge creation. In addition, consequences from external events were included to assess the roles of luck and randomness as well as their affects on employee beliefs within the 100-year old firm given the pseudonym of The Company.

Given that knowledge is only useful in its context, the introduction described the origins of The Company that this researcher argues is a positive Black Swan event - an improbable positive event that has massive consequences. In this case, the unlikely founding of a firm by a poor teenage boy that birthed a new industry and changed how Americans express their feelings and connect with others. Also described in the introduction is a birth of another industry, this one by the Internet. The new socio-

technical paradigm joined with a new economy to create unpredictable and highly scalable global networks. This improbable event is the second Black Swan confronted by the firm. Unfortunately this time, what was deemed improbable just a decade ago is now the source of significant negative consequences that put the firm's competitive position in jeopardy. In retrospect, it may seem ironic that the firm that established how many Americans emotionally connect would not lead the next generation of social connecting in the emerging digital mediums. However, this is the nature of Black Swans that begin outside the realm of the expected, have an extreme impact on the world around them and are predictable only in retrospect as people create explanations for their occurrence only after the fact. This is indeed a problem of knowledge. When firms focus only on what they know and what has already happened, then they are blind to the reality of events that *may* happen but have not happened yet.

Five sections comprise the literature review. The first section begins by setting the historical context for organizational culture in traditional US companies that is followed by topics of learning, definitions of knowledge, and learning organizations in the second section. The third summarizes organizational knowledge creation theory and its evolution over the course of almost twenty years of research outside the US. Social practices and leadership behaviors require the exploration of truth, trust, blame, shame, and power in the four sections that provides important background for the fifth and final section that reviews the literature on the paradoxes within organizations, the decision-making practice and the role that luck and randomness play in success.

This case study used a variety of quantitative and qualitative data that included survey data collected by The Company in 2011 and qualitative data collected in fourteen formal semi-structured interviews with middle managers. Twelve of the interviews were conducted with male middle managers that are presently employed at The Company to specifically investigate reasons behind the survey data results. Two interviews were conducted with former middle manager employees, one male and one female, that no longer work at The Company to understand their beliefs after voluntarily resigning less than 12 months earlier. Finally, other qualitative data was comprised of primary data from direct observation of formal group discussions and relevant internal documents along with secondary data

sources including an ethnographic dissertation that provided historical context through a biographical and cultural analysis of the organization. The variety of data sources aided the attempt to answer the broad research questions raised in the study: is the theory of knowledge creation relevant at The Company and how do social practices and leadership behaviors impact the knowledge creation process as evidenced by employee beliefs. The following sections discuss the main findings as derived from the research and contribute to Nonaka's organizational knowledge creation by elucidating the two voids in theory: is organizational knowledge creation theory relevant in a US based firm, and how do social practices and leadership behaviors affect knowledge and ultimately, the firm's competitive advantage.

## **5.2 Organizational Knowledge Creation Theory in the US**

The interviews and direct observations at The Company reveal the theory of organizational knowledge creation does not have relevance in this US corporation primarily due to the narrow way in which knowledge in general is perceived as well as valued, and the lack of broadly adopted leadership behaviors that enable and empower the thoughtful actions and respected authority of subordinates. These limiting factors stem from structural and societal influences that produce acculturated behavior in the organization that is not easily, if ever fully, overcome. First, the Western views of knowledge that value the possession of explicit knowledge, and measurement and management to near-term results are not in alignment with knowledge creation theory. The examples, shown below, illustrate the lack of value placed on tacit knowledge, or "instincts," that were also observed in the use of the decision-making model where "fact-based" decisions are not just encouraged but required. Observations indicate use of the structured decision-making model at The Company may actually inhibit learning, especially in instances where decisions are elevated to senior leaders instead of made at the level where the work occurs.

*At the end of the day, you can find people who are super smart and you can find people who are really hard working but the people are the best of all are the people who have tremendous intuition and instinct about what needs to be done next. At the end of the day if you look at really large companies like Yahoo or Apple and you wonder why they are successful and it always comes back to some leader who had a vision and they had an instinct that something needed to be*

*sellable and it was on a big scale. So I always look for people who in the corners, when there is a stressful situation, have really good instincts about what they may need to do. Over time if you trust them, they may take you in a direction you hadn't thought but the outcome is a lot better. I thought I had good instincts and when leaders would finally listen and trust me, I thought we always got good things done. But I spent a ton of my career explaining, explaining and explaining and at some point you can't explain your instincts. (Interview, Former Employee #1)*

*I would say we have become very clear on using the decision making model which I am a big proponent of because you don't want to sit there and spin in meetings. But we have a culture of coming in, this is the topic, framing and debate means I have two or three choices on what we are going to do so let's frame and debate those and we've got to do this in one hour. The reality of it is we are going to have convergers and divergers in that room and there are some people who would like to get out, maybe annoyingly to some, and there are clearly people in there who would like to have more discussion and more understanding before they can get to a decision. So you have half the room that's thinking, "okay we have enough information, let's go," but then you have the other half of the room who doesn't have the information they need to feel comfortable to make the decisions. So you leave that room a little bit divided still and you are at the point where you don't have the decision. It's just more of "this I what we're leaning to and we have to shoot it up the ladder" to make sure we get the right decision or to get the decision made. But I think you have half the room who are still not clear on why it went in that direction because they don't have enough information. (Interview, Employee 8)*

Lastly as observed at The Company, the views of objective measurement and management in the business setting prevail over the emotional and more abstract concepts of nurturing and love. This fundamentally set limits to the first phase of knowledge creation, Socialization, because the love, trust, and commitment created through Originating *Ba* is not consistently established to encourage individuals to remove the barriers to authentically share emotions, experiences, and mental models.

Second, the hierarchical management model at The Company is not conducive to the power distribution or ancillary practices that enable organizational knowledge creation as described in Nonaka's theory. In the traditional hierarchical model as practiced by The Company, the flow of information is controlled and is often restricted based on job level. The Company selectively shares information with employees as noted in the comments regarding the need for "transparency" and what is shared is generally done so explicitly. Practices such as redundancy are not in place to routinely create common cognitive ground nor are middle managers in empowered, decision-making positions to form the nuclei of self-organizing teams as they are in the Middle-Up-Down management model. In knowledge creation theory, middle managers play the crucial role of "knowledge producers" because they are at the intersections of vertical and horizontal flows of information in the firm and "actively interact with others

to create knowledge by participating in and leading *ba*” (Nonaka et al, 2000, p. 22). This is the foundation of “distributed leadership” that is not cultivated at The Company. Consequently, knowledge creation theory is not relevant or applicable at The Company. For this reason, the remainder of the discussion will use the more generic term of “corporate learning” to acknowledge that while organization knowledge creation as it is defined in theory does not exist at The Company, learning still occurs. It is likewise important to note that this researcher does not believe that the indiscriminate adoption of select organizational knowledge creation practices will produce value and may even be detrimental to performance as shown in piece meal adoption of Lean manufacturing practices derived from TPS (Jayaram, 2010, Bergenwall et al, 2012).

### **5.3 How do social practices and leadership behaviors affect knowledge creation**

Organizational knowledge creation is the process by which the knowledge created by individuals is made available, amplified, and connected to the organization’s knowledge system (Nonaka & von Krogh, 2009). As discussed, this process of knowledge creation as described by theory does not occur at The Company due to the narrow way in which knowledge is perceived and the lack of broadly adopted leadership behaviors that empower subordinates in the hierarchical management model, most notably middle managers given their critical roles in theory as knowledge producers and energizers of *ba*. However, the cultural beliefs that preclude knowledge creation can also thwart corporate learning. Several social practices and leadership behaviors detrimental to corporate learning were observed and are summarized in the paragraphs that follow. Important to recognize is that these practices and behaviors are not mutually exclusive meaning they overlap, intersect and are altered based on the individual, group, business environment and set of circumstances in which they occur.

First, the overarching social practices that appear to affect corporate learning are the lack of transparent communication and subsequent trust, lack of effective decision-making and accountability at the level the work occurs, and inconsistent appreciation of new thought and skills sets. Leadership behaviors directly influence the social practices within The Company given the cultural norm that the



more senior the manager, the greater power they have to make decisions and in many instances, the more knowledge they have or are perceived to have. Senior leaders set the tone and modes of operation at The Company, which is similar to the creation of shared context or *ba* in knowledge creation theory, albeit not exclusively limited to the realm of senior leaders or organizational structures, as is the case with the hierarchical model. When network of interactions lack trust, have little empowerment or fail to appreciate new thought and talent, the ability for new knowledge to be created is limited. The result at The Company is existing knowledge that is severely restricted and does not commonly extend across multi-layers within the organization or across functional boundaries. Instead, what are created are pockets of knowledge, or “tribes,” that possess and occasionally hoard their knowledge.

*We are a tribal knowledge company. We have people who have been doing something, the exact same job for 20 years who have never changed, never been asked to change, and in fact we don't want them to change because they know what they are doing, they are good at it. So we don't always rotate people, as we should. (Interview, Employee 7)*

Second, the leadership behaviors that appear to affect corporate learning are the same ones that originate from many of the social practices discussed: how communication and trust is established, whether decision-making is effective and exemplifies accountability, and how new thought and skills sets are appreciated. Leadership behaviors were also seen to affect corporate learning by how competitive threats were addressed. The denial and lack of effective response to the threats rising in the digital space is a current source of frustration and lack of confidence not only in the specific skills and talents of leadership but also in the future of The Company in general. From the qualitative data collected, it appears that innovations in digital connecting failed to succeed not because there was lack of alignment with the corporate vision and not because there were no attempts made. Limited success to date seems to stem from a lack of tacit knowledge, experience or “instincts” to discover new value propositions in this rapidly evolving space. Failed attempts in digital are likely to also come from cognitive biases present when critical decisions were made, as was some really bad luck in timing. Each of these three factors will now be discussed in greater detail.

Leaders did not have the necessary experiences or motivating personal interest to digitally connect; therefore, they did not have a deep tacit knowledge required for creativity and innovation in the space. They appeared not to understand it, to fear it, therefore, dismiss it in favor of their current, proven and profitable business models. Intrinsic motivation is needed for activities that require creativity (Osterloh & Frey, 2000) and in this case, it seems also necessary to inspire action that is in direct alignment with The Company's corporate vision. What was missing was the path to a new business model - the money - the extrinsic reward. Those who are extrinsically motivated tend to repeat what has already been successful (Amabile 1996, 1998; Schwartz, 1990 by Osterloh & Frey, 2000), and are pressured to achieve the rewards that lead to superficial performance and reduced levels of learning. Secondly, this researcher suspects that a combination of cognitive biases and organizational pressures played a role in the decisions that failed to produce desired outcomes for digital business models. Anchoring, competitor neglect and confirmation bias may be factors that plagued critical decisions. Organizational pressures, such as an overarching cultural need to be the "very best," and the extrinsic motivation of teams accountable for achieving a revenue goal may have contributed to the inability to create the new knowledge necessary to iterate and learn their way to success over time. Lastly, what bad luck on timing; to enter and exit digital innovation when only a small portion of the US population had broadband access and the use of personal technical devices such as smart phones had not yet emerged.

## 5.4 Implications

This case study demonstrates that what is not learned can be a source of loss – loss of trust, intellectual waste, lost potential in new markets, and weakened belief in a firm's vision for the future. When knowledge is treated as property that must be protected and defended, as Taleb (2010) argues, then an organization can obscure knowledge or knowing from itself. In a competitive marketplace, protecting intellectual property is certainly necessary; however, it must be balanced with the organization's need to successfully utilize and *create* knowledge. Otherwise, behaviors intended to protect the knowledge "property" can impede innovation within the firm that "owns" them. The social practices and leadership

behaviors described seem to be exacerbated by the tenuous situation The Company finds itself in – they must rapidly find ways to participate in digital mediums and the new marketplace that has established itself in an environment of flat to declining revenues and increasing costs. This creates circumstances where resources are more constrained, risk taking is less tolerated pushing decisions upward to be scrutinized resulting in middle managers who experience a loss of decision-making authority and increased concerns about the future, especially when strategic choices have not resulted in renewal and recovery. Strategic failures and abrupt cessation of strategic initiatives appear to have increased middle manager feelings of mistrust and that leadership is “grasping for salvation.” The cycle of grasping for salvation ultimately leads to running out of hope, options, and cash (Collins, 2009) rather than the disciplined behaviors that promote sound business practices and knowledge creation that are critical for recovery and sustainable growth. There is perpetual optimism present even in employees that are no longer at The Company “so a lot of the advancements in the organization happened out of a forced nature.... We’re amazing when we are forced into action.” (Interview, Former Employee #2).

The collective social practices and leadership behaviors discussed have unintended consequences that manifest in lack of confidence and lack of risk taking in employees that put limits on individual and corporate learning. These consequences threaten The Company’s ability to innovate. Brené Brown (2012) asked Kevin Surace, then CEO of Serious Materials and *Inc.* magazine’s 2009 Entrepreneur of the Year, what the most significant barrier to creativity and innovation was and he replied:

*I don’t know if it has a name, but honestly, it’s the fear of introducing an idea and being ridiculed, laughed at, and belittled. If you’re willing to subject yourself to that experience and if you survive it, then it becomes the fear of failure and the fear of being wrong. People believe they’re only as good as their ideas and that their ideas can’t seem too ‘out there’ and they can’t ‘not know’ everything. The problem is that innovative ideas often sound crazy and failure and learning are part of revolution. Evolution and incremental change is important and we need it, but we’re desperate for real revolution and that requires a different type of courage and creativity. (Kevin Surace from Brown, 2012, p. 186)*

Blame is a cultural pattern that still exists at The Company; therefore, shame needs to be consistently addressed rather than “covered-up.” Shame breeds fear, destroying the tolerance for individuals to be vulnerable. People need to be vulnerable in order to trust and need to feel trust to be vulnerable (Brown,

2012). Trust must be nurtured at The Company and is “a slow-building, layered process that happens over time” (Brown, 2012, p. 47). Empathy is a valued asset and love is a connection to be cultivated fulfilling the primal human need for belonging even in a Western corporate environment. Empathy is required for self-transcendence and is essential to sharing individual tacit knowledge. As individuals trust, they allow themselves to be vulnerable and authentic dialogue is possible.

*I've found very few people I would consider great leaders. ... In order to gain control you have to be able to give it up. You have to be vulnerable and let your ego drop to the point where you realize these are very bright adults, the same as you. However, they were treated in the past and whatever knowledge they were exposed to, your job is to make them as effective as possible. Generally they are the experts and you have to trust them. Ultimately that is a control thing. In order to trust someone, you have to share pretty deeply either on a personal level or at a corporation level otherwise you don't trust. (Interview, Employee 6)*

The need for trust and vulnerability must also be balanced with the need for accountability and power. Likeability is overrated and power is an intrinsic part of leadership (Pfeffer, 2010). Pfeffer's lessons on the obstacles to the path to power are also important ones for corporate learning and building competitive advantages. First, do not believe the world is a fair so learn from all people and situations, especially from those you do not agree with. Second, avoid the leadership literature that focuses on success stories often dismissing discussions of the power plays as well as the large role that luck can play (Kahneman, 2011). And third, get over yourself by not being overly concerned with your self-image or experiencing setbacks. Powerful leaders need to be attentive to maintaining the desired practices and values within their organizations as they learn to adapt to predictable and unpredictable challenges that inevitably emerge. Leaders must direct learning in new, strategic areas because failures can come from focusing on what is known rather than focusing on what is not.

In addition to the social practices and leadership behaviors discussed, other patterns of detrimental behavior within the organization must be recognized and avoided. The behavioral patterns are grounded in a false belief that organizational structure can improve how knowledge is created, that new project “hype” will increase adoption, and that attitudinal engagement surveys always reflect behaviors. First, it does not appear that cycles of organizational restructures at The Company have

dramatically changed corporate learning or the ability to create new knowledge that results in significantly improved business outcomes and increased competitive advantage. Second, there is evidence to suggest that the tendency of the leadership to hype or “oversell” new projects can be the source of dysfunctional behaviors when they do not deliver on forecasts. New and often complex projects may include scenario planning that dramatically understates the probability of failure that results in a loss of trust. Finally, the “employee engagement index” as it is measured does not reflect the important reasons behind employee beliefs illustrated in this case study and is positively skewed by the question of pride. Beliefs of pride measure memories of past success not expectations for the future. Interviews showed employees take exceptional pride in The Company’s past performance and the power of the brand; however, this pride and brand equity is not sustainable if future years do not demonstrate the social practices and leadership behaviors that enable corporate learning, new knowledge, innovation, and growth.

Finally, my hope is that The Company finds ways to confront the Black Swan and worries less about risking embarrassment and more about missing an opportunity (Taleb, 2010, p. 296). Chances for success can be random and the ability to seize situations that can produce “good” luck as well as develop human capital is reflected in the firm’s performance. Luck is an elusive theoretical concept and, like it or not, is determinant of performance (Ma, 2002). Social connections between human beings reside in the world where Black Swans are common - knowledge in this context grows slowly, erratically, in a manner that cannot be controlled. To be strong and successful in the new socio-technical paradigm The Company must release the traditional, hierarchical ways of working – they must build trust to be trusted, place the firm’s assets where they can benefit from serendipitous happenings and be able at critical times to be vulnerable and...let go.

## **5.5 Limitations of the study and future research**

This study focuses on corporate learning within and external events impacting The Company. Consistent with case study research, the limitations of research include specific findings and

interpretations that may not be applicable to other situations and organizations. The opinions of The Company's current and former employees can only be explicitly described through words and images; therefore, the complete transfer of their knowledge may be limited. Some of the viewpoints discussed may involve a limited number of employees, and may not be potentially representative of the broader population. However, these research findings can be used to compare with the extant organizational knowledge creation theory literature and can be further tested with other organizations in the US.

If the traditional hierarchical company featured in this study is indicative of others in the US, there are indeed few companies in the US that embody the true nature of the knowledge-creating company and have little understanding of what knowledge is and what must be done to exploit it. Suggestions for future research include case studies on US firms that effectively practice organizational knowledge creation and firms that are transitioning away from hierarchical management model to other models that may be more conducive to organizational learning, knowledge creation, and innovation. Research in corporate learning, knowledge creation, and the various other terms used to describe organizational development is valuable and is built upon the premise that the conversion of information into knowledge and holistic learning can be a source of competitive advantage and critical asset to the firm. Corporate learning and knowledge creation has never been more relevant in the US and the global marketplace where Black Swans are prevalent. Paradoxically, what should be acknowledged in the research are the roles of luck and randomness to appreciate the likelihood of surprises and not overestimate how much *we think* we know.

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## APPENDICES

### Appendix 1. Pulse Survey Periods and Responses

		Survey Period			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Feb 2009	513	3.9	3.9	3.9
	May 2009	525	4.0	4.0	7.9
	Sept 2009	483	3.7	3.7	11.5
	Dec 2009	393	3.0	3.0	14.5
	March 2010	559	4.2	4.2	18.7
	Feb 2011	4134	31.3	31.3	50.1
	May 2011	722	5.5	5.5	55.5
	July 2011	771	5.8	5.8	61.4
	Oct 2011	3496	26.5	26.5	87.9
	April 2012	735	5.6	5.6	93.4
	Oct 2012	867	6.6	6.6	100.0
Total		13198	100.0	100.0	

### Appendix 2. Pulse Survey Questions

Employees at all US locations were “encouraged to complete the Pulse survey to provide timely feedback on topics that are particularly important to their business.” Survey participants were asked to “check the box in each row that best describes how they feel about the following statements for the company at large” using a typical five-level Likert scale of strongly disagree, disagree, neutral (neither agree or disagree), agree or strongly agree. Responses were coded categorically as strongly disagree=1; disagree=2; neutral (neither agree or disagree)=3; agree=4; strongly agree=5.

1. Within this company, decisions are made in a timely, efficient manner.
2. This company regularly adapts its work processes to the changing needs of its business.
3. At this company, resources and efforts are focused on what matters most.\*\* (Culture Behaviors)
4. Leaders are making decisions in the best interests of the entire company instead of their own division's needs.
5. At this company, employees willingly provide candid and direct feedback to others.
6. Leaders reward and recognize employees who experiment and learn.
7. Individual work goals and priorities are clearly communicated to me.
8. I use “The Company” products to connect with others for ANY DAY occasions.
9. I advocate the use of “The Company's” NEW products.
10. This company values my contribution.\*\* (Contribution)
11. In this company, there is open, honest two-way communication.\*\* (Communication)
12. I feel that I am part of a team.\*\* (Involvement and Belonging)
13. I trust the leadership of this company.\*\* (Trust)
14. The leadership of this company has communicated a vision of the future that motivates me.\*\* (Future/Vision)

15. At this company, people are held accountable for achieving appropriate objectives.
16. I believe this company has an outstanding future\*\* (Future/Vision).
17. I am confident this company will be able to transform its business.\*\* (Future/Vision)
18. I would gladly refer good friends or family members to this company for employment.\* (Advocacy)
19. I rarely think about looking for a new job with another company.\* (Commitment)
20. I am proud to work for “The Company.”\* (Pride)
21. Overall, I am extremely satisfied with this company as a place to work.\* (Satisfaction)

Survey participants were asked to provide the following information. Response options with their categorical coding are listed under each question.

22. What gender are you?  
“Female” = 1; “Male” = 2
23. What is your job level?  
“Individual contributor”=1; “Front line supervisor”=2; “Middle manager (grades 11-14)”=3;  
“Senior manager (grade 15+)”=4; “Don’t know”=5\*\*\*
24. How long have you worked for “The Company”?  
“Less than a year”=1; “1-3years”=2; “More than 3 years but less than 5”=3; “5-10 years”=4;  
“More than 10 years but less than 20”=5; “20 years or more”=6
25. What year were you born?  
“Before 1945”=1; “1945-1960”=2; “1961-1967”=3; “1968-1981”=4; “1982 or later”=5

*\*Results from these four questions are used to measure the employee engagement in the case study analysis as the percent of employees who agree with all four questions. The employee engagement index (EEI) score utilized by The Company uses the same questions to measure the average percent of employees who agree with the four questions. EEI scores will not be utilized in the case study.*

*\*\*Questions are significantly correlated to the four questions used to measure employee engagement.*

*\*\*\*For question #23, responses of “Don’t Know”=5 were removed from the data analysis.*

### **Appendix 3. Pulse Follow-Up Interview Questions**

1. What is your job level?
  - Individual contributor
  - Front line supervisor
  - Middle manager (grades 11-14)
  - Senior manager (grade 15+)
2. How long have you worked for “The Company”?
  - 1-3years
  - More than 3 years but less than 5
  - 5-10 years
  - More than 10 years but less than 20
  - 20 years or more
3. What year were you born?
  - Before 1945
  - 1945-1960
  - 1961-1967
  - 1968-1981
  - 1982 or later

4. Do you believe the company has the capabilities it needs to succeed? Why or why not?
5. Do you have access to the resources you need to succeed? Why or why not?
6. Do you think the company's social practices affect knowledge/knowing within the company? If so, how? What are examples?
7. Do you think the company's leadership behaviors affect knowledge/knowing within the company? If so, how? What are examples?
8. If not already mentioned, what behaviors do you experience that build or erode trust?
9. Do you trust the skills and talents of senior leaders? Why or why not?
10. Do you think the company is building competitive advantages? Why, why not and how?
11. Do you agree with all four statements that measure engagement? (shown as #18-21 in Appendix 2)

#### **Appendix 4. Post Employment Interview Questions**

Reflecting on your experience at The Company:

1. Were there factors that inhibited your performance and/or ability to learn? If so, how?
2. Do you think the company's social practices affect knowledge/knowing within the company? If so, how?
3. Do you think the company's leadership behaviors affect knowledge/knowing within the company? If so, how?
4. Is there a cultural belief that job level equates to knowledge? Any implications?
5. Based on your responses, are there implications to building competitive advantages? If so, what?

#### **Appendix 5. New Labels for Dichotomous Variables**

<b>Variable Label</b>	<b>Survey Question</b>
Bright Future	16. I believe this company has an outstanding future.
Trust	13. I trust the leadership of this company.
Future Vision	14. The leadership of this company has communicated a vision of the future that motivates me.
Transform	17. I am confident this company will be able to transform its business.
Value Contribution	10. This company values my contribution.
Open Comm	11. In this company, there is open, honest two-way communication.
Focus Matters	3. At this company, resources and efforts are focused on what matters most.
Team	12. I feel that I am part of a team.

**Appendix 6: Logistic Regression Table 11****Variables in the Equation with Values Contribution as Dependent Variable**

	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
							Lower	Upper
Gender	-.121	.057	4.433	1	.035	.886	.792	.992
Employment Length	-.166	.027	36.570	1	.000	.847	.803	.894
Year Born	-.009	.036	.062	1	.804	.991	.924	1.063
Step 1 <sup>a</sup> Job Status	.539	.075	51.195	1	.000	1.715	1.479	1.988
Middle Manager	-.378	.161	5.507	1	.019	.685	.500	.940
Oct Survey	-.565	.056	101.979	1	.000	.568	.509	.634
Constant	1.488	.246	36.427	1	.000	4.427		

a. Variable(s) entered on step 1: Gender, Employment Length, Year Born, Job Status, Middle Manager, Oct Survey.

**Table 11. Predictive Model for employees who believe this company values their contribution**

**Appendix 7: Logistic Regression Table 12****Variables in the Equation with Team as Dependent Variable**

	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
							Lower	Upper
Gender	-.346	.061	31.990	1	.000	.708	.628	.798
Employment Length	-.207	.031	45.379	1	.000	.813	.765	.863
Year Born	-.033	.039	.706	1	.401	.968	.897	1.045
Step 1 <sup>a</sup> Job Status	.682	.090	56.987	1	.000	1.978	1.657	2.360
Middle Manager	-.660	.191	12.006	1	.001	.517	.356	.751
Oct Survey	-.231	.060	14.779	1	.000	.794	.705	.893
Constant	2.086	.275	57.734	1	.000	8.056		

a. Variable(s) entered on step 1: Gender, Employment Length, Year Born, Job Status, Middle Manager, Oct Survey.

**Table 12. Predictive Model for employees who feel that they are part of a team**

## Appendix 8: Logistic Regression Table 14

### Variables in the Equation with Focus Matters as Dependent Variable

	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
							Lower	Upper
Gender	-.031	.052	.361	1	.548	.970	.876	1.073
Employment Length	-.163	.023	49.472	1	.000	.849	.811	.889
Year Born	-.097	.032	9.348	1	.002	.908	.853	.966
Step 1 <sup>a</sup> Job Status	.247	.054	21.346	1	.000	1.281	1.153	1.422
Middle Manager	-.462	.116	15.824	1	.000	.630	.502	.791
Oct Survey	-.126	.050	6.298	1	.012	.882	.799	.973
Constant	.795	.209	14.418	1	.000	2.214		

a. Variable(s) entered on step 1: Gender, EmploymentLength, YearBorn, JobStatus, MiddleManager, Oct\_Survey.

Table 14. Predictive Model for employees who believe resources and efforts are focused on what matters most

## Appendix 9: Correlation of Pride for The Company and Belief in Future Success

### Correlations

	Have Pride	Bright Future.16	Trust.13	FutureVision.14	Transform.17
Pearson Correlation	1	.358**	.399**	.374**	.336**
Sig. (2-tailed)		.000	.000	.000	.000
N	7593	7593	7593	7593	7593
Pearson Correlation	.358**	1	.514**	.539**	.711**
Sig. (2-tailed)	.000		.000	.000	.000
N	7593	7630	7630	7630	7630
Pearson Correlation	.399**	.514**	1	.582**	.521**
Sig. (2-tailed)	.000	.000		.000	.000
N	7593	7630	7630	7630	7630
Pearson Correlation	.374**	.539**	.582**	1	.535**
Sig. (2-tailed)	.000	.000	.000		.000
N	7593	7630	7630	7630	7630
Pearson Correlation	.336**	.711**	.521**	.535**	1
Sig. (2-tailed)	.000	.000	.000	.000	
N	7593	7630	7630	7630	7630

\*\* . Correlation is significant at the 0.01 level (2-tailed).

## Appendix 10: February 2011 survey comments suggesting communication improvements

*We have to end the ultra secretive nature that departments have about what they are doing. No one in this company should ever have to sign a non-disclosure agreement about a product [The Company] is making. We are all one team. We are all in this together. It just always feels like it's us against them when dealing with internal divisions around here.*

(Male individual contributor, Pulse Survey February 2011)

*[Name of senior leader D] does an outstanding job of being spontaneous, open, available and communicative in person* (Male middle manager, Pulse Survey February 2011)

*I think we're on the right path, now more people need to step up and use communication tools to actually communicate!* (Male individual contributor, Pulse Survey February 2011)

*Need better management and directors who share information within the merchandising group.* (Female individual contributor, Pulse Survey February 2011)

*This past year was very beneficial when the management team came to 2420 for meetings. It presented a more relaxed atmosphere to ask questions. I hope it continues.*

(Female individual contributor, Pulse Survey February 2011)

*Need more opportunities for two-way communication*

(Female front line supervisor, Pulse Survey February 2011)

*Management should be more open to constructive criticism. Not taking it personally.*

(Female front line supervisor, Pulse Survey February 2011)

*Need more information about progress on corporate direction as it relates to the entire company*

(Male individual contributor, Pulse Survey February 2011)

*Need more timely information-proactive rather than reactive.*

(Female front line supervisor, Pulse Survey February 2011)

*Foster an atmosphere where ideas and suggestions are welcomed by managers/team leaders*

(Male front line supervisor, Pulse Survey February 2011)

*Immediate management needs to communicate more with staff*

(Female front line supervisor, Pulse Survey February 2011)

*Don't tell us what we already know. Tell us the bigger picture.*

(Female individual contributor, Pulse Survey February 2011)

*More "in the moment" language, less "crafted"*

(Female senior manager, Pulse Survey February 2011)

*Honest discussion, no more spin, no more stories and enough with the blogs on dealing with change. We're not 12, we're professionals in a highly skilled and specialized field*

(Male individual contributor, Pulse Survey February 2011)



## Appendix 11: “Win as Much as You Can” Group Facilitation Exercise

Formal Meeting “Foundations of Business Process” in 2010: Purpose was to build awareness of business process and collaborative thinking through a series of functional and cross-functional team meetings conducted throughout the 2010. Total attendees included 300+ US employees across various job levels.

The purpose of the exercise was to “break the ice” by playing a game at the meeting open and examine aspects of acculturated social behavior in situations where players had to choose between supporting

Let's Play Win As Much As You Can	
The Payoffs	
4 REDS	All Lose \$100
3 REDS 1 GREEN	Win \$100 Lose \$100
2 REDS 2 GREENS	Win \$200 Lose \$200
1 RED 3 GREENS	Win \$300 Lose \$100
4 GREENS	All Win \$100

individual team interests versus group benefit. The only game rules given to participants were to 1) get in four teams, 2) name your team, and 3) optimize results to “win as much as you can” in four rounds of play where each round, teams were asked to submit a ballot with the word “red” or “green” noted with their team name. Participants asked for more rules, none were given instead they were instructed to devise their own strategy and they could discuss it with whomever they wish.

At the conclusion of four rounds, teams totals were tabulated along with the total payout *across all* teams.

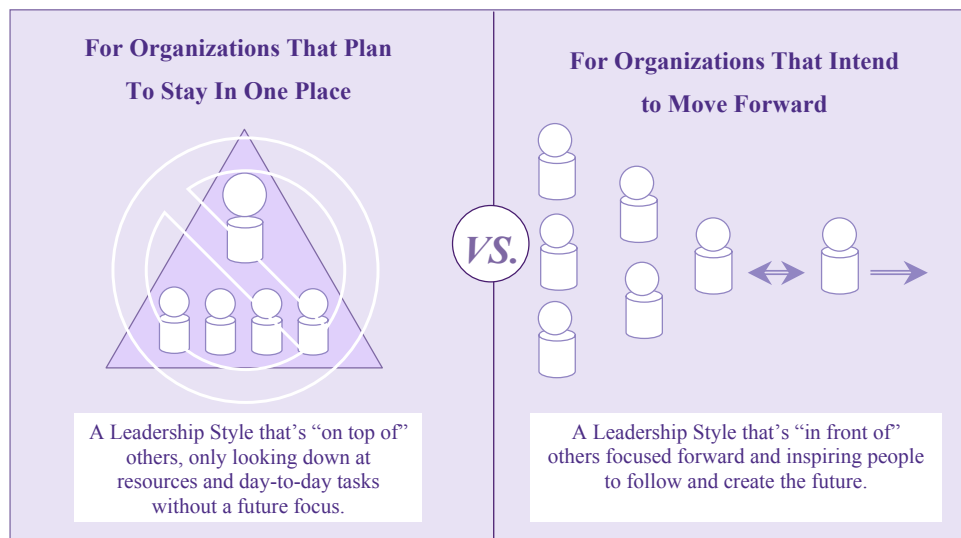
Team(s) that submitted “red” ballots realized they sub-optimized results because if all teams submitted “green” ballots for all four rounds the *total group payout* is maximized at \$1600. Any “red” plays place team interests over the group and sub-optimize overall results by reducing the total payout amount. Of the games played in the US in 2010, only one session did the group with every team play “all green” which equates to roughly 5% of total participants. Notably, this group was the functional leadership team from Operations that expressed they could not play any other way – they had to depend on one another.

## Appendix 12. The Company’s Decision-Making Model Explained

As part of business transformation The Company recognized that changing the culture required deliberate efforts to define the desired cultural attributes and establish new employee behaviors to achieve the desired results of sustainable profitable growth, increased consumer engagement and expanded brand relevance. The Decision-Making Model consists of four parts to be used to increase clarity, accountability and timely action on decisions: frame, debate, decide, and act. First, “frame” the scope of the decision that needs to be made, determine the decision-maker, whose input is needed and the timeline for the decision to be made. The expectation for employees in this step is “do your homework.”

“Debate” the options after stating an initial recommendation and ask for all points of view. The expectation for employees is to vigorously debate the options. Third, “decide” with courage by making the decision “based on weighing pros/cons of all inputs” and “communicate and document the decision and the rationale.” The expectation for employees is to “support uniformly, no going back! (rare exceptions).” Lastly, “act” to get results by developing a communication plan to activate the decision, delegate responsibilities and accept accountability. The employee expectation is to be accountable for the success of the decision and give clear and honest feedback with a focus on moving forward and learning.

### Appendix 13. The Company "Leadership Model for the Future" 2009



### Appendix 14. The Company Behavior Principles from Woodstone™ Consulting (2007):

The training program that began with a core group of senior managers was cascaded to all senior and middle managers in a three-day course that was generally referred to as Woodstone™. The business objectives of the course were to drive the success of business transformation by outlining clear expectations of leadership behaviors, instill respectful truth-telling, and create self-awareness that together fosters overall culture change at The Company. A condensed version of the curriculum was launched across the company and titled "Stepping Stones – The Pathway to Leadership Excellence."

Both Woodstone™ and the condensed version, Stepping Stones, are comprised of topics that range from The Company's state of the business, the Myers-Briggs Type Indicator (MBTI), topics on emotional intelligence, authentic communication and The Woodstone™ high performance model. As part of the model, employees were asked to "assume positive intent" in their conversations with others and accept accountability as described below.

- *You are accountable for your own performance*
- *You are accountable for the success of your stakeholders*
- *You must be willing and able to subordinate your personal agenda for the good of the company goal*

*Behavior has consequences: if you are unwilling or incapable of you cannot be on this team.*

## Appendix 15. Informed Consent Statement for The Company's Survey Data

### INFORMED CONSENT STATEMENT

#### A Case Study on Organizational Knowledge Creation

The purpose of the qualitative case study is to test the theory of Organizational Knowledge Creation in a US based firm to determine its relevance to American organizations and contribute to theory by exploring how social practices and leadership behaviors affect employee knowledge.

#### RISKS AND BENEFITS

The Department of Educational Leadership and Policy Studies at the University of Kansas supports the practice of protection for human subjects participating in research. No risks, burden, inconvenience, or discomfort are anticipated with your participation in the study. There are no direct benefits anticipated to you as a result of this study. No payments are provided to any participants.

#### PARTICIPANT CONFIDENTIALITY

The corporation name or employee names will not be associated in any publication or presentation with the information collected or with the research findings from this study. Instead, the researcher will use pseudonyms rather than names.

Permission granted on this date to use and disclose your information remains in effect indefinitely. By signing this form you give permission for the use and disclosure of **employee pulse surveys from 2011** for purposes of this study at any time in the future.

#### QUESTIONS ABOUT PARTICIPATION

Questions should be directed to the researcher(s) listed at the end of this consent form.

#### PARTICIPANT CERTIFICATION:

I have read this Consent and Authorization form. I have had the opportunity to ask, and I have received answers to, any questions I had regarding the study. I understand that if I have any additional questions about my rights as a research participant, I may call (785) 864-7429 or (785) 864-7385, write the Human Subjects Committee Lawrence Campus (HSCL), University of Kansas, 2385 Irving Hill Road, Lawrence, Kansas 66045-7568, or email [mdenning@ku.edu](mailto:mdenning@ku.edu).

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Type/Print Participant's Name

---

Date

---

Participant's Signature

#### *Researcher Contact Information:*

Tammy Broaddus  
Principal Investigator  
Educational Leadership & Policy Studies  
(address & phone number provided)

John Rury Ph.D.  
Faculty Supervisor - University of Kansas  
Educational Leadership & Policy Studies  
(address & phone number provided)

## **Appendix 16. Informed Consent Statement for Interviews**

### **INFORMED CONSENT STATEMENT**

## **Organizational Knowledge Creation and Social Practices**

### **INTRODUCTION**

The Department of Educational Leadership and Policy Studies at the University of Kansas supports the practice of protection for human subjects participating in research. The following information is provided for you to decide whether you wish to participate in the present study. You may refuse to sign this form and not participate in this study. You should be aware that even if you agree to participate, you are free to withdraw at any time. If you do withdraw from this study, it will not affect your relationship with this unit, the services it may provide to you, or the University of Kansas.

### **PURPOSE OF THE STUDY**

To determine how organizational knowledge creation is affected by social practices in large organizations as they initiate new strategies and build new capabilities to become more competitive in the marketplace. This case study of a single, large US company with a relatively homogenous population will test Nonaka's and associates theory of Organizational Knowledge Creation and examine to what extent external forces and internal factors such as social practices affect the organizational knowledge creation process.

### **PROCEDURES**

Thank you for providing your name at the end of the questionnaire to participate in this follow-up interview to learn more about your beliefs and opinions. Your responses will be audio taped for research purposes only and will be destroyed at the conclusion of this research. Quotes and/or references from this interview will be anonymous.

### **RISKS**

No risks, burden, inconvenience, or discomfort are anticipated with your participation in the study. You may choose to not answer any question if you are uncomfortable and end this interview at any time.

### **BENEFITS**

There are no direct benefits anticipated to you as a result of this study.

### **PAYMENT TO PARTICIPANTS**

No payment is provided but this interview is conducted during business hours at company X.

### **PARTICIPANT CONFIDENTIALITY**

Your name will not be associated in any publication or presentation with the information collected about you or with the research findings from this study. Instead, the researcher will use a study number or a pseudonym rather than your name. Your identifiable information will not be shared unless required by law or you give written permission.

Permission granted on this date to use and disclose your information remains in effect indefinitely. By signing this form you give permission for the use and disclosure of your information for purposes of this study at any time in the future.

#### REFUSAL TO SIGN CONSENT AND AUTHORIZATION

You are not required to sign this Consent and Authorization form and you may refuse to do so without affecting your right to any services you are receiving or may receive from the University of Kansas or to participate in any programs or events of the University of Kansas. However, if you refuse to sign, you cannot participate in this study.

#### CANCELLING THIS CONSENT AND AUTHORIZATION

You may withdraw your consent to participate in this study at any time. You also have the right to cancel your permission to use and disclose further information collected about you, in writing, at any time, by sending your written request to Tammy Broaddus.

If you cancel permission to use your information, the researchers will stop collecting additional information about you. However, the research team may use and disclose information that was gathered before they received your cancellation, as described above.

#### QUESTIONS ABOUT PARTICIPATION

Questions about procedures should be directed to the researcher(s) listed at the end of this consent form.

#### PARTICIPANT CERTIFICATION:

I have read this Consent and Authorization form. I have had the opportunity to ask, and I have received answers to, any questions I had regarding the study. I understand that if I have any additional questions about my rights as a research participant, I may call (785) 864-7429 or (785) 864-7385, write the Human Subjects Committee Lawrence Campus (HSCL), University of Kansas, 2385 Irving Hill Road, Lawrence, Kansas 66045-7568, or email [mdenning@ku.edu](mailto:mdenning@ku.edu).

I agree to take part in this study as a research participant. By my signature I affirm that I have received a copy of this Consent and Authorization form.

Type/Print Participant's Name	Date
Participant's Signature	

#### *Researcher Contact Information:*

Tammy Broaddus  
Principal Investigator  
Educational Leadership & Policy Studies  
(address & phone number provided)

John Rury Ph.D.  
Faculty Supervisor - University of Kansas  
Educational Leadership & Policy Studies  
(address & phone number provided)